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STATEMENT OF SECRETARY OF DEFENSE ROBERT S. McNAMARA  
BEFORE A JOINT SESSION OF  
THE SENATE ARMED SERVICES COMMITTEE AND  
THE SENATE SUBCOMMITTEE ON DEPARTMENT OF DEFENSE APPROPRIATIONS  
ON THE FISCAL YEAR 1965-69 DEFENSE PROGRAM AND 1965 DEFENSE BUDGET

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Mr. Chairman, Members of the Committee:

This is the third Defense program and budget it has been my privilege to present to this Committee. Again, my prepared statement is arranged in the same manner in which the Defense program is developed, namely, in terms of the principal missions of the Defense establishment, rather than by organizational component or by budget category. Attached to each copy is a set of related tables which you may wish to follow as we proceed through the statement.

Upon completion of my statement, General Taylor, the Chairman of the Joint Chiefs of Staff, is prepared to present the customary military posture briefing together with his analysis of the military situation in certain critical areas of the world and to discuss certain recent changes in our command arrangements.

By and large, we have projected our forces and programs through fiscal year 1969, five years beyond the current fiscal year. As I pointed out last year, the further into the future we project these programs the more provisional they should be considered. Changes will inevitably have to be made as we move along, and entirely new projects whose need we cannot now clearly foresee will have to be added. I have attempted in this statement to note the more important changes that have taken place since I appeared here last year and to explain the reasons why they were made.

Throughout the statement I will be discussing costs in terms of "total obligational authority" (TOA), i.e., the full cost of an annual increment of a program regardless of the year in which the funds are authorized, appropriated, or expended. These costs will differ, in many cases, from the amounts requested for authorization and appropriation, especially in the Procurement accounts where certain prior year funds are available to finance 1965 programs. Moreover, most of my discussion will deal with the total cost of a program, including the directly attributable costs of military personnel and operation and maintenance, as well as procurement, research and development, and military construction.

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## I. INTRODUCTION

### A. APPROACH TO THE FISCAL YEAR 1965-69 PROGRAM AND THE FISCAL YEAR 1965 BUDGET

Throughout the preparation of the fiscal year 1965-69 program and the fiscal year 1965 budget, we have been guided by the same two general instructions given to me originally by President Kennedy and re-emphasized so strongly by President Johnson, namely, to develop the force structure necessary to meet our military requirements without regard to arbitrary budget ceilings or pre-determined financial limits, and to procure and operate this force at the lowest possible cost.

As I have pointed out in previous appearances before this Committee, in adding to a Defense program as large as the one we now have, we soon encounter the law of diminishing returns, where each additional increment of resources used produces a proportionately smaller increment of overall defense capability. While the benefits to be gained from each additional increment cannot be measured with precision, careful cost/effectiveness analyses can greatly assist in eliminating those program proposals which clearly contribute little to our military strength in terms of the costs involved.

This principle is just as applicable to qualitative improvements in weapons systems as it is to quantitative increases in our forces. The relevant question is not only "Do we want the very best for our military force?", but also, "Is the additional capability truly required and, if so, is this the least costly way of attaining it?"

Let me give you one hypothetical example to illustrate the point. Suppose we have two tactical fighter aircraft which are identical in every important measure of performance, except one - Aircraft A can fly ten miles per hour faster than Aircraft B. However, Aircraft A costs \$10,000 more per unit than Aircraft B. Thus, if we need about 1,000 aircraft, the total additional cost would be \$10 million.

If we approach this problem from the viewpoint of a given amount of resources, the additional combat effectiveness represented by the greater speed of Aircraft A would have to be weighed against the additional combat effectiveness which the same \$10 million could produce if applied to other defense purposes - more Aircraft B, more or better aircraft munitions, or more ships, or even more military family housing.

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And if we approach the problem from the point of view of a given amount of combat capability, we would have to determine whether that given amount could be achieved at less cost by buying, for example, more of Aircraft B or more aircraft munitions or better munitions, or perhaps surface-to-surface missiles. Thus, the fact that Aircraft A flies ten miles per hour faster than Aircraft B is not conclusive. We still have to determine whether the greater speed is worth the greater cost. This kind of determination is the heart of the planning-programming-budgeting, or resources allocation problem within the Defense Department.

Through the rigorous application of these policies, principles and techniques and through the Cost Reduction Program which I will discuss later, we were able in our program and budget reviews to reduce our fiscal year 1965 budget request, including Military Assistance, from about \$61 billion proposed by the Services and Defense Agencies to approximately \$50.9 billion, a reduction of about \$10 billion. Thus, as shown on Table 1, our fiscal year 1965 NOA request is \$2.8 billion less than the \$53.7 billion requested in January a year ago for the current fiscal year. And expenditures in fiscal year 1965 are estimated at \$51.2 billion compared with \$52.3 billion for the current year.

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B. ASSESSMENT OF THE INTERNATIONAL SITUATION AS IT BEARS ON MILITARY POLICIES AND PROGRAMS

When I appeared before this Committee two years ago, our attention was focused particularly on the Berlin crisis, which had been precipitated by the Soviet Union in the summer of 1961. Last year when I appeared here, the Nation and, indeed, the entire world had just experienced perhaps the gravest crisis in recent history, again precipitated by the Soviet Union, this time in Cuba. And, on the other side of the world, Communist China had created still another crisis with its attack on the northern frontiers of India.

This year, although the struggle for ideological, political, economic, and military advantage continues in many parts of the world, we have not been confronted with any new crisis provoked by the Soviet Union and no new armed aggression has been undertaken by Communist China. Indeed, as far as the Soviet Union is concerned, the Cuban crisis of October 1962 seems to have marked the crest of the latest in the series of crises cycles engendered by that country since the end of World War II. We now appear to be on the downward slope of this latest

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cycle and tensions in our relations with the Soviet Union are easing. Within the last twelve months, all of the Soviet combat units in Cuba have been removed, although several thousand training and technical personnel still remain there; after years of negotiation, agreement has finally been reached on a limited nuclear test ban; and just last December Chairman Khrushchev announced a four percent cut in the Soviet Defense budget and hinted at reductions in military personnel. Far less tangible but perhaps just as significant is the change in the demeanor of Soviet diplomacy.

What do these developments presage for the future? Has there been a basic change in Soviet policy toward the United States and the free world, or do these developments simply reflect a change in tactics forced upon the Soviet Union by events beyond its control? The answers to these questions are of crucial importance not only to our foreign policy but to our military policies and programs as well.

I do not believe we can reasonably assume that these manifestations of a change in policy reflect a change in the ultimate objective of the Soviet leadership, which is to extend the sway of communism over the rest of the world. Their dispute with the leadership of Communist China is not over the ultimate objective but how it is to be achieved and who is to control the world-wide Communist movement. Expansionism is so deeply engrained in Communist doctrine that it would be naive for us to expect any Communist leadership to repudiate it.

Much more likely, these apparent changes in policy were brought about by forces and pressures beyond the control of the Soviet leadership. What are some of these forces?

First and foremost among them, I would list the substantial build-up in our own military strength during the last three years, both for general and for limited war. Here are a few specifics:

. A 100 percent increase in the number of nuclear weapons available in the strategic alert forces.

. A 45 percent increase in the number of combat-ready Army divisions.

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. A one-third increase in the number of tactical fighter squadrons.

. A 60 percent increase in the number of tactical nuclear weapons deployed in Western Europe.

. A 75 percent increase in airlift capability.

. A 100 percent increase in general ship construction and conversion.

. A six-fold increase in counterinsurgency forces.

Second, I would list our demonstrated willingness to risk using these forces in defense of our vital interests. Here are some examples:

. The call-up of about 150,000 reservists and the deployment of 40,000 additional men to Europe in the summer of 1961.

. The confrontation of Khrushchev on the issue of Soviet offensive missiles in Cuba in October of 1962.

. The dispatch of 16,000 U.S. military personnel to South Vietnam to assist that country with logistics and training support in combatting the Viet Cong insurrection.

. The prompt response of the United States in sending Army and Marine Corps units to Thailand in May, 1962, when it appeared that the Communists might overrun Laos.

Third, I would list our continuing efforts to assist other free nations in defending their sovereignty and in building a better future for their people. Our military and economic aid to such nations, particularly those on the periphery of the Communist Bloc, has given them a more desirable alternative to communism and has made them less vulnerable to Communist penetration and subversion.

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Fourth, I would list the economic difficulties being encountered by both the Soviet Union and Communist China, particularly the failure of their agricultural programs. The recently announced reduction in the Soviets' defense budget and the slowdown in their foreign aid and space programs are, no doubt, related directly to the recently announced massive investment in their chemical industry. As I pointed out last year, the resources and capabilities of the Soviet Union are by no means unlimited. The stress and strain imposed on the economy by their military and space programs, their efforts to raise the standard of living of the people and compete with the United States in foreign aid were becoming increasingly apparent even then. That is why we concluded a year ago, "... that the strain of so many competing claims on the Soviet economy will tend to limit the size and help determine the character of the Soviet military program at least over the next few years."

Finally, I would list our own policy of holding the door wide open to proposals for lessening world tensions, for reaching agreements on nuclear tests, and for bringing the armaments race to a halt. This policy has presented the Soviet Union an alternative to the cold war. How far the Soviet leadership will go in accepting it is still to be seen.

If this analysis is correct, then our future course is clear. We must continue to maintain powerful and ready military forces. We must continue to demonstrate our willingness to risk their use where our vital interests are at stake. We must continue to hold out a helping hand to those nations directly exposed to Communist aggression and to those nations which are striving to provide a better life for their people. And we must continue to keep open the door to peace.

As President Kennedy said at the time the limited test ban treaty was signed in Moscow: "This treaty is not the millennium. It will not resolve all conflicts, or cause the Communists to forego their ambition, or eliminate the dangers of war. It will not reduce our need for arms, or allies, or programs of assistance to others."

Nothing has occurred in the intervening months to change that assessment. Notwithstanding the economic difficulties now being experienced within the Communist camp, as long as political and economic instability continues to exist in so many countries around the world, both the Soviet Union and the Chinese Communists will find many low-cost opportunities to carry on their assault on freedom and to spread the doctrine of communism. The fact that they are now competing with one another in trying to win the allegiance of uncommitted nations may actually increase our difficulties since it may well stimulate them to even greater efforts in penetrating the more vulnerable areas of the world.

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Thus, the struggle against communism is far from over and although the prospects for peace look somewhat more encouraging than they have for many years, this is not the time to relax our efforts and cut back our national security programs.

1. Strengths and Weaknesses of the Communist Bloc

One of the most significant developments of the past year has been the public airing of the dispute between the rulers of the Soviet Union and Communist China. While we have been fully aware for some time of the growing cleavage between the two powers, this public discussion has revealed much about the nature of the dispute and its underlying causes. It is now quite evident that we are witnessing more than a disagreement on ideological matters and on strategy in opposing the free world. What is involved is a direct clash of national interests. The Chinese Communists have made clear their determination to possess a modern armament industry and nuclear weapons, while the Russian Communists have quite plainly revealed that they believe their security interests call for definite limits on Chinese Communist military power. The bitterness with which the dispute has been waged has already led to almost total cessation of economic cooperation and has split the world-wide Communist movement. And, while we do not have any hard evidence, it would not be surprising if both countries were to take some actions to strengthen their military forces along their common frontiers.

Both the Soviet Union and Communist China insist that they favor peace; both affirm that communism must and inevitably will triumph throughout the world. The Soviet Union maintains that the victory of communism need not require "world" war, that a "peaceful" transition to a Communist world is possible. During this transition they assert that the ideological battle must continue while armed insurrections by Communist or pro-Communist rebels are to be supported on the pretext that they are "national liberation movements."

They [REDACTED] call generally for a more militant approach to the struggle, a call which appeals to certain Communist groups who are hungry for power which they have little or no hope of achieving by legitimate means.

Actually, both the Soviet Union and Communist China have shown that they are as eager as ever to create difficulties for the free world whenever and wherever they can do so safely; but both have shown a realistic appreciation of the power opposing them and a desire to keep crises from going beyond their control.

a. The Soviet Union

The strains upon the Soviet economy which were evident a year ago are now even more apparent. To the difficulties resulting from the drain

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of scarce, high-grade resources into military and space programs plus the introduction of a shorter workweek has been added the burden of an unusually bad year for agriculture. The large Soviet purchases of wheat have revealed the depths of the crisis in agriculture, a condition which can by no means be blamed entirely upon the adverse weather of the past season. These purchases are forcing the Soviet Union to dip more deeply into reserves of gold and hard currency than would normally be prudent.

Recent calculations indicate that the growth in Soviet GNP during the last two years has been well below three percent per annum. This compares with a five percent increase in 1961, six percent in 1960 and eleven percent in 1958. Agriculture was the biggest millstone with a four to four and one-half percent decrease in output below the previous year, both in 1962 and 1963. Production of consumer goods grew during the period but at a slowing pace. Industrial production, however, has grown at an average annual rate of about seven percent for the last four years, which is somewhat lower than earlier years but better than that in some of the NATO countries. New fixed investment since 1960 has dropped far below the 12-16 percent annual growth rates of the 1950's, to a level of just under five percent, much of which has gone into the heavy industry sector.

The Soviet leadership has selected expansion of the chemical industry as the key to the solution of the agricultural problem and to the improvement in the general standard of living. Premier Khrushchev is calling for the investment of more than 42 billion rubles (nominally about \$46 billion) over the next seven years in plants and equipment for the chemical industry, with increases in production of chemicals, plastics, synthetics and fertilizer of from three to seven times current levels.

It is of interest to note that the Soviets have had plans for the rapid expansion of the chemical industry since 1958. The goals now being set for 1970 are quite comparable to 1970 targets established in 1961. Many are, in fact, somewhat reduced. The significant departure from former programs appears to be the emphasis on foreign credit requirements. Even though the Soviet planners insist that they can meet their goals from their own resources, this change in emphasis seems to be an implicit admission that help will be needed from the nations of the free world. The prior claims on Soviet gold and foreign exchange resources arising from recent grain purchases complicate their problem.

The shift in emphasis to agriculture and the chemical industry has brought to a head the very severe resources allocation problem which I spoke about last year. While there is always the chance that the announced reduction of 600 million rubles in defense expenditures is simply a shift from one part of the Soviet budget to another, I believe some sort of a

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reduction is being made in favor of other demands. What this reduction may mean in terms of military personnel strength, procurement, etc., is not yet clear. The significant point, however, is that the competing demands on the Soviet budget are serving as a restraint on the size of the military forces.

Another evidence of economic pressure is the sharp reduction in new military aid commitments to non-bloc countries in Africa and Asia during the past two years. Actual deliveries, however, are still at a fairly high level. The falling-off in commitments may prove to be temporary, since the Soviet Union continues to be alert to all possibilities for extending its influence through the export of military equipment.

[REDACTED] the European satellites show increasing signs of individuality and autonomy. Moscow no longer automatically takes its European clients for granted. Their independent ties with Yugoslavia are becoming closer; and Western Europe's prosperity exerts an ever stronger appeal. Although coercion by the open use of force is, as in the past, still a possibility, the Soviet Union obviously prefers more indirect and subtle forms of influence over these countries. This preference allows some freedom for maneuver. The Soviet effort to impose integration on their economies through the Council for Economic Mutual Assistance has been notably less successful than Western Europe's freely taken moves along parallel lines.

[REDACTED]

Notwithstanding their economic difficulties and their dispute with Communist China, the Soviets still present a formidable threat to the United States and the free world. Their large ground and tactical air forces, supported by hundreds of medium and intermediate range ballistic missiles, pose a serious threat to Western Europe; and their growing force of ICBM's and missile-launching submarines together with their long-range air force constitute a direct threat to the United States. (I will discuss these forces in greater detail later in my statement.) And, the Soviet Union still has a great capacity for subverting freedom in many other ways - through propaganda, political intrigue, subversion, etc. But their internal problems and growing need for credit assistance from the Western powers may serve as a brake on Soviet trouble-making proclivities during the next few years.

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b. Communist China

The Chinese Communist leaders' doctrinaire approach, the curtailment of Soviet aid, and a succession of agricultural disasters brought the shaky Chinese economy close to collapse in 1961-62. After months of groping, the regime has apparently made a small beginning towards a recovery of sorts. Continuing massive grain imports prevent outright starvation but use up most of China's hard currency earnings. Earlier grandiose industrial plans have been set aside. The basic goal now is to achieve and maintain agricultural self-sufficiency. Years are likely to pass before Chinese industry - largely obsolete and still half-idle - can recover from the setbacks it has suffered.

Shortages notwithstanding, the Chinese Communists still persistently divert important and scarce resources to a nuclear program that will not produce what I would consider meaningful results in weaponry during this decade. On a selective basis they also invest in politically motivated foreign aid programs, often in competition with the Soviets as well as with the free world.

The Chinese Communist armed forces continue to be well-trained and led, but outfitted by the standards of a decade or two ago. Much of their best equipment and weapons is Russian-made, spare parts and replacements are not forthcoming, and inventories accordingly are aging and diminishing. Their air force feels the pinch most. Little if any modernization has been accomplished in the past two years, and the aircraft inventory has shrunk by some 15 percent.

Moreover, as a result of the Sino-Soviet split, the Chinese must certainly feel considerably less confident of Soviet support in the event of a military clash with some other major power. Already in the economic field, the Chinese are attempting to reorient their trade away from the Soviet Bloc to Japan and Western Europe.

Thus, it appears doubtful that the Chinese Communists will, within the next year, undertake any major campaign -

They may also engage in hostile actions or shallow penetrations along the frontiers and they will certainly continue to support subversion and insurrection in Southeast Asia and attempt to gain control of revolutionary movements elsewhere in the world.

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2. Southeast Asia

No region is more vulnerable and exposed to Communist subversion than Southeast Asia. Living in the shadow of the Communist giant to the north, the far smaller nations in this region are torn between their desire to be free and independent and their fear of being overrun by the Chinese hordes. It is quite understandable therefore that a policy of neutralism should look very attractive to some of them. Yet most of the governments in that area realize the danger of placing themselves at the mercy of Communist China and have sought to retain some ties with the Western powers, particularly the United States.

The principal objective of U.S. policy in Southeast Asia is simply to maintain the integrity and independence of the non-Communist nations in that area. We do not require that they be allied with us, but we do attempt to convince them that any tendency to be neutral on the side of Communist China will inevitably lead to Communist control. Accordingly, we have tried in every possible way to support the independence of the non-Communist nations in Southeast Asia wherever our help is wanted, and we have respected the positions of those nations which prefer to seek their security in neutrality. Thus we have a small military program in Burma in addition to a commitment to build a road in that country. However, we have terminated both our military and economic aid programs for Cambodia.

In the case of South Vietnam, our help is clearly wanted and we are deeply engaged in supporting the Vietnamese government and people in their war against the Communist Viet Cong. In addition to large-scale economic and military assistance, we are also maintaining a very substantial training and logistics mission in that country. Including the Military Assistance Advisory Group, there are now about 15,500 U.S. military personnel in Vietnam providing training, airlift, communications and advice to the Vietnamese forces and administering the Military Assistance Program.

But the situation there continues grave. Last September we had hoped we could bring sufficient pressure to bear on the Diem government to persuade it to abandon its oppressive measures against the Vietnamese people and get on with the task of winning the war against the Viet Cong. Although the military situation in the Delta region was still very bad, good progress had been made in the northern areas and especially noteworthy work had been done in the key coastal provinces where Viet Cong strength had once threatened to cut the country in half. In the central area and the highlands, progress had been steady, though slower. The situation was still difficult in the provinces to the west and north of Saigon itself. Throughout the northern two-thirds of the country, the strategic hamlet program had developed very well and freedom of movement in the rural areas

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had grown steadily. We concluded then that top priority should be given to the Delta region which contains approximately 40 percent of the population. This region has traditionally resisted central authority. It is the center of Viet Cong strength, and the swampy nature of the terrain makes it the most difficult area to pacify.

The first step in that direction had already been taken by September when a third division was moved to the Delta. But we felt that additional measures were needed, particularly: the consolidation, rather than the further spread, of strategic hamlets; the elimination of many fixed outposts; better hamlet defenses; and more trained hamlet militia. We also felt that the regular Republic of Vietnam Army units should be reserved for use in mobile actions and for "clear and hold" operations in support of the strategic hamlet program.

With these further measures in view, we felt that a start could be made in reducing the number of U.S. military personnel in Vietnam as their training missions were completed. Accordingly, we announced that about 1,000 men were to be withdrawn by the end of 1963, and expressed the hope that the major part of the U.S. military task could be completed by the end of 1965, although we recognized that there might be a continuing requirement for a limited number of U.S. advisory personnel.

In this connection, we must recognize that the U.S. advisory effort cannot assure ultimate success. This is a Vietnamese war, and in the final analysis it must be fought and won by the Vietnamese. To leave our advisers there beyond the time they are truly needed would delay the development of Vietnam's initiative. Therefore, it has been our policy to transfer U.S. responsibilities to the Vietnamese wherever this can be done without impairing the total war effort.

Unfortunately, the Diem government did not choose to follow the advice we offered. In November that government was overthrown and replaced by a new government made up of military officers and civilians. The Viet Cong was quick to take advantage of the growing opposition to the Diem government and the period of uncertainty following its overthrow. Viet Cong activities were already increasing in September and continued to increase at an accelerated rate in October and November, particularly in the Delta area. And I must report that they have made considerable progress since the coup.

The new government, however, has considerably more popular support than its predecessor and the Military Revolutionary Committee is beginning to take action to intensify military operations and to improve civil administration. The strategic hamlet program which had been overextended in the Delta area is now being built more solidly. And the new government is now applying "clear and hold" tactics in that area.

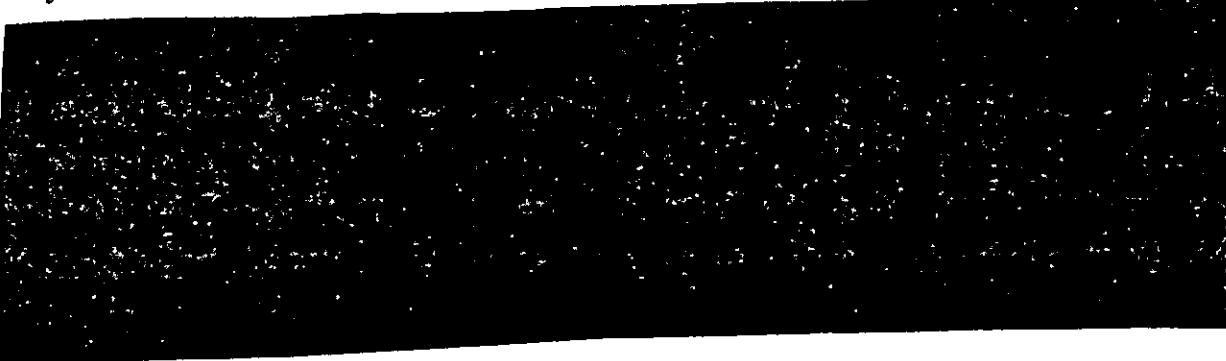
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We hope that, with our full support, the new government can take hold and eventually suppress the Viet Cong insurrection. The dry season will give us a firmer basis for this judgment. However, the survival of an independent government in South Vietnam is so important to the security of all of Southeast Asia and to the free world that I can conceive of no alternative other than to take all necessary measures within our capability to prevent a Communist victory. We must prove that Communist aggression cannot succeed through subversion, but will fail as surely as it has failed in direct confrontation.

The situation in Laos has a direct bearing on our problems in Vietnam and is also crucial to the security interests of the free world in the rest of Asia. In terms of Western interests, the position of Laos, as it has developed over the past year, can only be characterized as extremely precarious. Although the Communist-supported Pathet Lao have not yet launched a major military attack against the non-Communist factions, they are taking every opportunity to sabotage the coalition government headed by neutralist Prince Souvanna Phouma. The Communists continue to control the key border areas adjacent to Vietnam plus the provinces in the north bordering on China and continue to jockey for tactically advantageous positions in the important Plaine des Jarres.

On the favorable side, although we did withdraw our military advisors under the terms of the Geneva Agreement of 1962, we have succeeded in re-equipping some of the non-Communist forces with conventional arms allowing them to discard obsolete and unsupportable Communist-Bloc equipment. Moreover, these forces are now better trained and in a better state of morale than they were a year ago. I believe it is of utmost importance that we continue our limited assistance to this country and be prepared to take all possible measures to thwart a complete Communist takeover of this keystone nation in Southeast Asia.



The new Thai government which took over at the recent death of Prime Minister Sarit has yet to prove itself. We are engaged in a major effort to assist Thailand in improving its capability to meet the threat of Communist infiltration and subversion and in strengthening its internal

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military communications and logistic facilities. Although these efforts are progressing satisfactorily, we do not expect them to enable Thailand to stand alone against an attack by Communist China. But they should provide Thailand with sufficient strength to cope with Communist-inspired insurgency as long as the surrounding countries remain independent. The north and northeast portions of the country are those most vulnerable to infiltration and insurrection, and there we are assisting the government by road building, installation of communications and the improvement of medical and sanitation facilities. These preventive measures are producing good results.

For the United States, Indonesia is a dilemma; it is of great strategic importance from a geographic and resources point of view, but [REDACTED]. Indonesia, now the world's fifth most populous nation, is controlled by persons whose motivations are not only extremely nationalistic [REDACTED]

[REDACTED] and they fear domination by Communist China. Accordingly, Sukarno will probably continue to seek a neutralist course but his task will be most difficult, especially so because of the economic problems [REDACTED]

### 3. Far East

To the north in the Pacific, Communist China is also the principal threat, it being quite unlikely that the Soviet Union would initiate hostilities in the Pacific, separate from a war in Europe. The situation in this area has been fairly stable during the past year. However, the Chinese Communists continue their "Hate America" campaign at home and abroad, and we know from experience that they can quickly shift their pressure from India or Southeast Asia to the Northeast, and we must continue to help the countries in that area.

Our principal commitment is still in Korea where we maintain two of our own divisions and help to support 18 Korean Army and Marine divisions. Korea is one of the largest recipients of U.S. military assistance and also receives substantial amounts of economic aid. We believe that in the coming fiscal year it may be possible to make some reduction in the size of both the U.S. and the Korean forces and to reduce our aid programs to that country.

We also have specific responsibilities to assist our other friends and allies in the Far East - the Philippines, the Republic of China, and Japan. The relative strength of these countries continues to improve.

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Japan, particularly, is now ready economically to support her own forces and is capable of expanding her forces to contribute to the security of the entire area. The economic strength of the Republic of China is growing rapidly and some reduction in our aid programs to that country should be possible in the coming fiscal year. Although somewhat less dramatically, the Philippine economy is also improving steadily. By and large, our contribution to the joint defense of these countries, in the event of attack, would be in the form of naval and air power which lie within the capabilities of our present and planned forces.

4. South Asia

To the west, in South Asia, the threat has changed in focus and intensity since I appeared before this Committee a year ago. Although there is continued danger that the Chinese communists, who are indeed increasing their logistics base, might repeat their performance of 1962 and attack India, we do not anticipate a new outbreak of fighting in the immediate future. We should, however, anticipate increased Chinese Communist political activity throughout the Subcontinent. Indeed, examples of this are already in evidence as the Chinese increase the tempo of their political relations with all countries neighboring India, particularly Pakistan, where they are trying to drive a wedge between that country and the United States. It is also quite possible that the Chinese will attempt to exploit anti-national feelings among India's dissident northern tribesmen.

While the fighting has stopped, the Indian military forces remain [redacted] and in need of considerable help in almost all areas, notwithstanding the aid we and the British Commonwealth nations have already furnished them. As you know, we have given India \$60 million in military assistance, as part of a \$120 million U.S.-Commonwealth emergency aid program agreed to at Nassau in December 1962 and we are providing an additional \$50 million in military assistance from fiscal year 1964 funds. We see a very real need for India to improve the quality of its defenses against the Chinese Communist threat, and we believe it is in our own nation's interest to assist them. We hope the United Kingdom and other Commonwealth countries will continue to do likewise.

Over the next few years, we plan to help convert more of India's infantry divisions to mountain divisions, improve the air defense radar and communications network, continue support of the air transport capability, and, if requested, provide both army and air force training. We are also considering modest defense production assistance, although we have not completed our studies in this field as yet.

Our military assistance to India has deeply troubled Pakistan, as you are well aware. Nevertheless, it is important to the entire free world, including Pakistan, that India should be able to defend itself

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against Chinese Communist aggression. As I indicated to you last year, the U.S. has taken great pains to assure the Government of Pakistan that our aid to India will not be at the expense of Pakistan's security, to which we are committed under our mutual defense agreements. General Taylor, during his recent visit, again endeavored to reassure Pakistan of our continued interest in, and support of, its national integrity.

The Chinese Communists also pose a grave threat to Nepal and could easily overrun that country with their forces now in Tibet. More probably, in our opinion, the Chinese Communists' aim is to infiltrate and subvert Nepal. They have provided the Nepalese both economic and military assistance, although the latter has been confined to a few radio sets and cloth for uniforms. The Nepalese have reportedly rejected other military assistance, including arms and ammunition.

We recognize, however, the desirability of Nepal having an internal security capability, which we estimate can be achieved with their existing 11,000-man army, provided it receives at least a small amount of external assistance. We are studying the possibilities now.

In Afghanistan, the situation has changed slightly for the better. Afghanistan's new government is attempting to formulate and implement a number of basic reforms, and to reduce its reliance on the Soviet Bloc. In this attempt, it has turned to the U.S. with requests for both military and economic assistance to promote this more independent line. Although we do not have sufficient funds to accommodate these requests, we have continued, on the military side, a small training program.

##### 5. Near East

The Near East is another area of great political instability and uneven economic development. While some of the nations in this region - Greece, Turkey, and Iran - border on the Soviet Bloc and are thus directly exposed to Communist military power, the more immediate danger to the peace and stability of the area is internal, and stems from: the deep-seated animosities existing between the Arab countries and Israel; the power struggles and rivalries among the Arab countries themselves; and the existence of powerful minority groups within most of these countries, such as the Kurds in Iraq, as well as inequalities which require social and economic reforms.

Thus, we are actually confronted in that area with two sets of problems: (1) to provide a sense of security to the three nations directly

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exposed to Soviet power; and (2) to help create an environment in which each of the nations in the area can maintain internal stability and develop its economy and society in its own way without fear of attack from its neighbors or infiltration and subversion by the Communist Bloc. To meet the first set of problems, we long ago made certain military commitments to Greece, Turkey, and Iran, and have for many years provided them with military and economic assistance. Since Greece and Turkey are members of NATO and will be dealt with in that context, I shall not discuss them any further in this section.

With respect to Iran, our objective has been to help build up their military forces to the point where they could ensure internal security and provide at least an initial defense against a Soviet attack across borders. Although the Iranian military forces, with our aid, have improved significantly during the last decade, they are still not and never can be a match for even those Soviet forces presently deployed along the Iranian borders, even though the terrain favors the defense. Thus Iran could not be expected to stand alone for very long against a major attack from its northern neighbor and would require immediate assistance from the United States; and in this event, the defense of Iran could not be separated from the larger problem of the collective defense of the free world.

Despite the strategic vulnerability of Iran, it seems quite unlikely that the Soviet Union would, in view of our mutual cooperation agreement with Iran, deliberately undertake a major aggression against that country in the near future. In fact, if Chairman Khrushchev's pronouncement of a few years ago regarding Iran can be taken at face value, the Soviet Union does not believe that military aggression is necessary to bring Iran into the Soviet orbit. Given the economic and social conditions prevailing in Iran a few years ago, Chairman Khrushchev said that Iran would in time "fall like a ripe fruit" into the Soviet lap. Recent vigorous Soviet efforts to improve relations with Iran and Communist efforts to take credit for the Shah's reforms indicate that Chairman Khrushchev may not be so sure today.

Regardless of the validity of that statement, it is certainly clear that the more likely contingency is a covert or ambiguous aggression, using dissident elements in Iran or neighboring nations to pave the way for ultimate Communist takeover. In Iran, as elsewhere in the world, the best defense against the spread of communism is a steady improvement in economic and social conditions, which is the primary aim of our economic aid efforts. These efforts are meeting with considerable success in Iran. The modernization of Iranian society under the leadership of the Shah is in full swing and the economic and social reforms generated by the Shah are making Iran an example for other underdeveloped nations.

In the rest of the Near East, our Military Assistance Program is essentially confined to training, with the exception of Jordan where we have a small materiel program. Although we do not share with the other

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Near East countries membership in any formal regional military organization, our interest in supporting stability and peace in the area has been well established and, we believe, is clearly understood by the countries involved. But the maintenance of stability and peace there is extremely difficult.

In Yemen, small-scale tribal warfare against the YAR and UAR forces continues. With a United Nations mission established, Saudi Arabia has suspended support for the royalists and efforts continue to broaden the base of the Yemen regime and expedite withdrawal of UAR combat forces.

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Iraq and Syria are still rent by struggles for power. The only ostensible objective which all of these Arab nations appear to share in common is the destruction of Israel. And here violence may flare over Israel's plan to divert the waters of the Jordan River.

The U.S. objective has long been to keep the Arab-Israeli feud from escalating to overt hostilities. Realization of this objective has been made more difficult by the injection of substantial Soviet Bloc aid - both economic and military - into the region, and particularly into the UAR, Syria, Iraq, and Yemen. For this reason, the U.S. has, on a very selective basis, provided some assistance in the form of sales of military materiel to Israel and the smaller Arab states, including Saudi Arabia and Jordan. And it is in this context that the U.S. sold HAWK anti-aircraft missiles to Israel to help provide an effective defense against modern fighters and bomber aircraft.

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In addition to our grant aid materiel and training programs, and selective arms sales, we have taken other steps to underscore our interest in arresting any deterioration in the security of that area. Our military forces have engaged in military exercises with those of such friendly countries as Iran and Saudi Arabia in order to demonstrate our capability and determination to lend support when and if required. We have also made our military presence visible through judicious and periodic deployments of elements of our own forces.

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## 6. Africa

Africa is a continent in transition and flux where the Communists have and may be expected to continue to exploit fully all opportunities for the extension of their influence. Africa is also of considerable significance to our own broad national security interests.

Our communications facilities in Morocco and Ethiopia and our airbase in Libya, are valuable elements of our world-wide force posture.

Within the framework of an Africa of emerging or newly independent states struggling to achieve economic and political viability, the reality of and potential for Communist penetration are self-evident.

Accordingly, we are extending our support, in conjunction with other friendly powers, to the important "nation-building" tasks that are peculiar to virtually all of the emerging African societies. Our support, in terms of economic, technical and modest military assistance is designed to contribute to the development of viable societies, including the capability to maintain internal security.

Approximately one-half of our very modest military assistance program for Africa is allocated to Libya and Ethiopia, whose governments have provided us with important military facilities.

Our programs elsewhere in Africa are very small and all our programs in Africa are geared to internal security.

We are well aware of the dangers inherent in the buildup of unnecessary military forces in Africa and the burden they would place on the still inadequate economies of the nations involved. But our military assistance program does provide the means for increasing the western orientation of

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some of the area's military forces and, to a small extent, contributes to the economic and social development of countries concerned through support of civic action type projects.

The most significant program in Africa, South of the Sahara, is for the Republic of the Congo (Leopoldville). Since 1960 we, together with other nations, have been supporting the UN effort to promote stability in this centrally located and potentially rich, but strife-torn, country. During the past year we have provided limited amounts of materiel and technical training to the Congolese Army in an effort to improve its ability to maintain internal security and morale. The re-establishment of law and order in that chaotic country is the essential prerequisite to ultimate political and economic stability.

Again, I wish to emphasize that the U.S. is carrying a small part of the total free world burden in assisting the Africans to develop their societies. Other nations, particularly the U.K. and France (and Belgium, in the case of the Congo), with interests and responsibilities in that part of the world, are supporting much larger programs of aid to their former dependencies. Our programs, by and large, are designed to supplement their efforts.

#### 7. Latin America

Latin America is another area where, much closer to home, the Communists are trying to exploit their foothold by taking advantage of political and economic instability. While Cuba now presents a diminished direct threat to the U.S., the continued existence of a Communist regime there poses an increasing threat to many Latin American nations, since it serves as a base for Castro-promoted Communist-led subversive activities. These activities include the indoctrination and training, in Cuba, of Latin Americans [redacted] and the provision of guidance, monetary aid, and open propaganda in support of revolutionary groups in other Latin American countries. Indeed, there is now solid evidence that weapons also are being sent from Cuba to dissident groups in other Latin American countries. The recent discovery of a cache of Cuban supplied arms in Venezuela, which is now being investigated by a committee of the Organization of American States, is a case in point.

Several actions have been taken to isolate this threat. In March, 1963, President Kennedy met with seven Presidents of Central American Republics, in San Jose, Costa Rica. The Presidents, in their joint declaration, agreed to arrange for Ministerial meetings to develop and put into immediate effect common measures to restrict the movements of their nationals to and from Cuba and to limit the flow of materiel,

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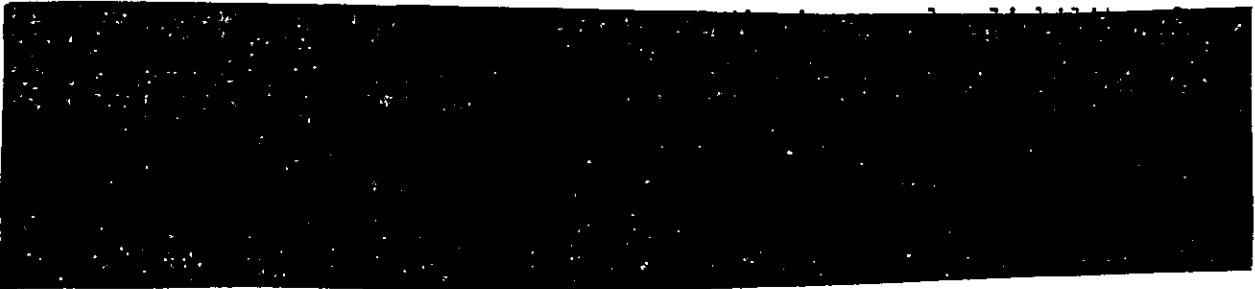
propaganda, and funds from that country. The first meeting at Managua, Nicaragua in April, 1963, set forth in further detail the recommendations of the Ministers to their respective governments. Follow-up conferences are scheduled to review the threat and to discuss additional measures which participating governments can take to improve their security. While much remains to be done, a start has been made to isolate the subversive threat from Cuba.

In Cuba itself, the Castro government is struggling with a grave economic crisis, but its grip on the people through the use of police-state methods is still unbroken. We are continuing our efforts to isolate Cuba from the free world, thus increasing the Soviets' burden of supporting the Cuban economy.

The present political and economic turmoil in many nations of Latin America may be expected to erupt periodically in acts of violence, ranging from flag burnings to mass demonstrations, terrorism, kidnapping, and perhaps even guerrilla warfare. These disorders, especially where they are aided and abetted by Communist leadership and supplies, pose a threat to the internal security of the nations involved and must be countered by force if necessary, and by collective action where appropriate. In coping with these problems, the internal security forces require prompt knowledge of where disorders are developing, the ability to get to the scene rapidly, and the skill to restore order. The largest part of our military assistance program for Latin America is therefore specifically tailored to help provide communication and transportation equipment and internal security training.

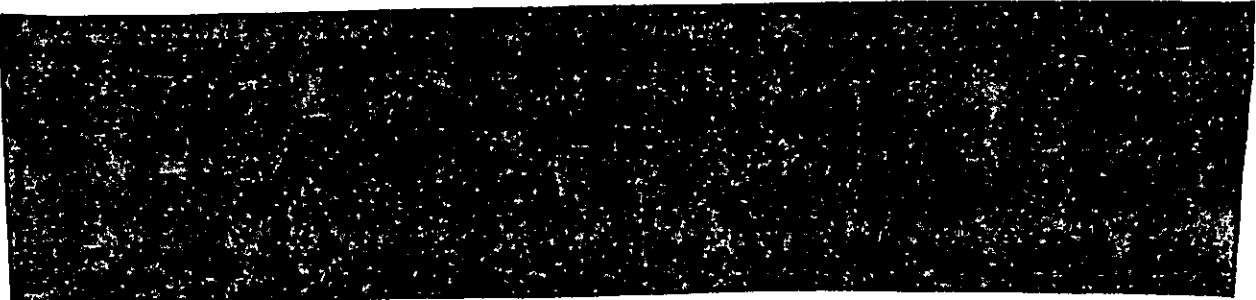


The successful completion of the Presidential election in Venezuela last December in the face of Communist-inspired violence which failed in its efforts to intimidate the entire populace and disrupt the electoral processes is an example of a nation and situation where the will to defend democratic government is strong. While terrorism will probably continue, the military, in backing President-elect Leon, will remain the key to survival of constitutional government.



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In Argentina, the political-military situation appears somewhat brighter, at least for the short term. Although there is no serious threat to the internal stability of Argentina at this time, extremists and ultranationalists and Peronistas may be expected to create disturbances if the security forces show weakness.

In the field of civic action, the programs supported by the U.S. have contributed notably to the construction of several hundred miles of rural roads, to railroad construction, to school construction and literacy programs, to health and sanitation, and to transportation service to remote areas. U.S. support has encouraged the expansion of civic action in the few countries which already had programs and has led the armed forces in other countries to initiate programs of their own. These have helped to give indigenous military forces a sense of mission and participation in evolutionary social and economic reforms, a greater interest in the welfare of their countries, and of particular importance in many countries, a better relationship with the civil population. Finally, the military assistance program has reinforced, and has been reinforced by, U.S. efforts under the Alliance for Progress.

We desire to use the collective arrangements permitted through the Organization of American States to deal with threats to the hemisphere. In furtherance of this objective, we have continued to support combined training activities of the armed forces of the U.S. and Latin American nations, including: Operation UNITAS, a naval exercise; Operation Fraternidad in Honduras; and, most recently, Operation America conducted in Colombia last December. Annual field training exercises and naval exercises involving the armed forces of as many as six South American nations simultaneously are planned.

But, as I noted last year, military programs alone will not solve the problems of political instability which arise from the continued economic difficulties in much of Latin America. The Alliance for Progress which was launched by President Kennedy two years ago has met with some success in some of the smaller Latin American countries, but the results elsewhere have so far not met our expectations. The level of self-help is still not sufficiently high and the conditions necessary to encourage

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private investment, both domestic and foreign, have not been established. As one careful student of this problem recently pointed out, economic growth is primarily a national enterprise. The amount of resources made available from outside the country can provide the critical margin of help, but that margin of help will be effective only to the extent that those receiving the aid are wholeheartedly committed to the goal of economic development and can effectively mobilize the human and material resources to do the job. The Alliance for Progress cannot succeed as a U.S. Government enterprise. The Alliance must be a cooperative venture within the hemisphere, in which aid from the U.S., as well as from other free world countries, is merged in an orderly way with the potentially great resources of the Latin American nations themselves.

As a nation, we are necessarily concerned in some degree with the security and welfare of free nations all over the world. Certainly, we must be even more deeply concerned with the security and welfare of the peoples of our own hemisphere. The Alliance for Progress, notwithstanding the difficulties involved, deserves a high place in our national priorities and the American people should be willing to carry the financial burden of strengthening the foundations of the collective security of the Western Hemisphere.

#### 8. NATO

Again, I have deliberately deferred to the last the discussion of Europe and the NATO area. The crucial importance of Western Europe to the collective security of the free world cannot be stressed too often. The six Common Market nations and the United Kingdom, alone, have a total population, a total military manpower pool, and a total gross national product well in excess of that of the Soviet Union. The strength of Western Europe is growing steadily year by year. Indeed, except for the United States, European NATO represents the greatest source of economic, political, military and ideological strength opposing the Communist camp, and it constitutes the bastion of free world power closest to the center of Soviet military strength. The loss or neutralization of any part of this area would be a disastrous blow to our own security.

Therefore, if for no other reason than our own self-interest, we must maintain within the NATO Alliance the closest kind of cooperation at all levels and in all spheres, and we must seek to focus and harmonize our efforts no matter how great the difficulty. The basic principle of the Alliance - that each nation regards an attack upon any member as an attack upon itself - rests on far firmer foundations than sentiment or altruism. Against the whole range of threats which might be posed by the Soviet Bloc, neither the U.S. nor any other member of NATO, nor any regional group within the Alliance, can provide adequately for its security in isolation.

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It is not surprising therefore that our new President has again unambiguously reaffirmed the commitment of the United States to the principles of the North Atlantic Alliance and to the defense of its member nations.

However, much has happened since NATO was first conceived more than a decade ago. Then, its purpose was to provide time and assistance to our European partners to rebuild their economies and their military capabilities against the imminent threat of a Communist takeover. Although we are far from satisfied with what has been accomplished in the military sphere, the original objectives have been substantially achieved. In the economic sphere, Western Europe is more than a match for the Soviet Bloc and, even with respect to relative military capabilities, NATO forces (including our own) now deployed in Western Europe are more evenly matched with the Soviet Bloc than has commonly been supposed. Indeed, with but relatively small increases in the current level of effort on the part of our European partners, and, especially with greater efficiency in the use of the financial and manpower resources now being made available, the NATO forces in Western Europe could adequately deal with a wide range of possible Soviet aggressions, both with or without the use of nuclear weapons. I will take up this facet of the problem in greater detail when I discuss the General Purpose Forces in Section IV of this statement.

But these same developments which have so favorably altered the position of Western Europe vis-a-vis the Soviet Bloc, together with the tremendous advances made in military technology, have also given rise to a need for a reassessment, not of the basic objectives of the Alliance, but of the ways and means by which these objectives are to be achieved over the next decade.

We have presented our views on this matter to our NATO partners and have offered a number of alternatives, particularly in the nuclear area. As you know, we have significantly increased both the nuclear and non-nuclear capabilities of our armed forces. We have liberalized the dissemination of nuclear information to our Allies and have increased their participation in nuclear planning. We have supported the concept of a sea-based multilateral missile force for NATO, which was first advanced by Secretary of State Herter in 1960. We have assigned POLARIS submarines to the Supreme Allied Commander, Europe (SACEUR), and we have agreed to assist the United Kingdom in developing a POLARIS force of its own. And, we are participating with our NATO Allies in studies of medium range ballistic missiles for use by the Alliance.

We have encouraged the North Atlantic Council to undertake a comprehensive and systematic study which would relate strategy to force requirements and force requirements to resources, so that realistic force

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goals can be developed which all of the members of the Alliance would consider attainable with the resources they are willing to commit to the common effort. And we have made it clear to our NATO partners that we are prepared to discuss changes in the present arrangements for the direction of the Alliance.

At the Paris Ministerial Meeting last December, Secretary Rusk and I reaffirmed the United States' commitments to NATO, including President Kennedy's affirmation that the U.S. will keep its divisions in Germany as long as they are needed. We emphasized the importance we attach to the achievement of a better balance and greater readiness from the resources already being devoted to the defense of the NATO area. We cautioned our colleagues that the American people will become increasingly restless with a situation in which the U.S. maintains qualitative standards - manning levels, combat stocks, and force readiness - generally higher than those of the other NATO member nations. And we urged on them the importance of our being able to place before the American people a clear-cut assurance that our NATO partners are cooperating with us in meeting our balance of payments problem and that they are carrying their fair share of the load - in short, that the Alliance is truly a successful mutual endeavor.

Our European NATO partners have, in fact, made significant increases in their defense efforts. Collectively, their defense expenditures have risen by almost 22 percent between 1961 and 1963: The Federal Republic of Germany has increased its defense expenditures by 50 percent, Italy by 29 percent, the United Kingdom by 14 percent, and France by 8 percent. The smaller NATO nations have made increases ranging from 10 percent in the case of Greece to 33 percent in the case of Denmark.

Some of our NATO Allies have also contributed importantly to the solution of our balance of payments problem, notably Germany, which has agreed to continue to offset our dollar expenditures there by purchases of goods and services from the U.S., and Italy, which has promised to purchase in fiscal years 1963 and 1964 a total of over \$200 million. Our NATO Allies have also made a small start in providing financial assistance to Greece and Turkey, and Secretary Rusk, at the NATO Ministerial Meeting last December, strongly urged them to expand that effort.

The present situation on the southern flank of NATO poses a number of special difficulties. Turkey faces a very serious economic problem of in 1964 and Greece is also hard pressed. Both will continue to need financial assistance from other members of NATO. During fiscal year 1963 the United States provided a total of \$85 million in grant military aid to Greece and \$166 million to Turkey.

It is particularly important that the military strength of these two countries be maintained.

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To complicate the situation further, relations between Greece and Turkey have again been strained by the outbreak of civil violence in Cyprus. Although prompt action by the United Kingdom has helped to contain this latest outbreak, the situation remains serious. The basic problem of how to distribute political power equitably between the Greek majority and the Turkish minority in Cyprus, which precipitated the recent flare-up in the first place, has still to be resolved. We hope that the problem can be resolved through negotiations.

The Cyprus problem demonstrates anew the political as well as the military value of NATO to the security of the free world. Greece and Turkey consulted with their Allies in the political forum NATO offered rather than allow their national concerns to flare into open warfare.

Internal disagreement among the Allies should not obscure the fact that NATO, now in its 14th year of existence, has indeed achieved its primary objective, i.e., the military security of the member nations. Deficiencies exist, but as has been noted, they can be overcome by rather minor increases in the present level of resources being devoted to defense, or possibly by the more efficient utilization of those resources. Differences in concepts and strategies can, with patience and perseverance, be worked out within the councils of the Alliance, since we are all agreed on our basic objectives. The success that NATO has already achieved in preserving the peace in Europe and the importance of the security of Western Europe to our own security leaves us no choice but to make every effort to maintain and enlarge the strength and unity of the Western Alliance.

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In summary, we see a strong Soviet Union and a far weaker Communist China, both beset with economic difficulties, seriously divided and competing for leadership of the international Communist movement. Both continue to support large military forces, though Communist China's aspirations for great-power status have received severe setbacks. The overall power balance is such that the Communist nations can be expected to avoid situations in which they would risk war with the United States. We must expect, however, that they will use their military power to support their political objectives in a variety of places and to encourage and support subversion and rebellion against non-Communist governments.

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C. THE DEFENSE PROGRAM AND THE ECONOMY

As I pointed out last year, a program as large as Defense, commanding nearly ten percent of our total national output, is bound to have an important impact on the economy - internationally, nationally, and locally. And, indeed, at the local level this impact is usually intensified by the uneven geographic distribution of defense-related industry and our own military activities, by the disproportionately large claims made by the defense program on some occupational categories and on certain sectors of industry, and by the rapidly changing composition of the defense program as technological innovations create the need for new weapons and facilities and make obsolete the old.

1. Impact on the National Economy

The Department of Defense is vitally concerned with the economic impact of the Defense program both on the nation as a whole and on the individuals, communities, companies and industries involved. We recognize our obligation to do everything we properly can to minimize the disruptive effects of changes in that program and to assist, insofar as we are able and the law permits, those who are adversely affected by these changes. It is most important, however, that there be the widest possible awareness of the very real limitations on what we believe is the proper role of the Department of Defense in this area. The Defense Department cannot and should not assume responsibility for creating a level of demand adequate to keep the economy healthy and growing. Nor should it, in developing its programs, depart from the strictest standards of military need and operating efficiency in order to aid an economically distressed company or community. The Congress has regularly underscored this limitation by explicitly forbidding in our annual appropriation act "the payment of a price differential on contracts .... for the purpose of relieving economic dislocations".

In this regard I can only reiterate what I have assured congressional committees on many previous occasions. Defense Department policy, as in the past, is to buy what we need, when we need it, at the lowest cost to the Government, quality and delivery schedules considered.

Recognizing these limitations on our actions, there are, nevertheless, a number of things that the Defense Department can usefully and properly do in this area:

a. We can give certain limited preferences to chronically depressed and surplus labor market areas and take certain steps to ensure an equitable participation by small business firms. Along with other agencies of the Government, we have active and vigorous programs in both of these fields.

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b. We can try to forecast and to give advance warning to communities and industries liable to be affected by major changes in the defense program and, drawing on our own experience in similar situations, offer such advice and assistance as we can in facilitating the necessary readjustments. To this end, I established two years ago an Office of Economic Adjustment to serve as a focal point for mobilizing the capabilities of both our own Department and other Government Agencies in giving such advice and assistance. This office works directly with local community leaders whenever its advice or help is sought.

c. We can try to learn more about the specific economic effects of the Defense program in order to be in a better position to anticipate the impact of possible changes. During the past year we have taken a number of actions to improve our knowledge in this area. Chief among them is what we call the Economic Impact Project, which is designed to provide the basic data and analytical framework needed to assess the impact of changes in the Defense program on the economy, by industry and geographic area. As a part of this project, the Bureau of the Census is undertaking a special survey of Defense and other Government work in the manufacturing industries as a supplement to its regular 1963 Annual Survey of Manufactures. When these data are collated, we will be in a much better position to determine both the broad regional as well as the "industry" impacts of Defense programs. Armed with this new information on the "structure" of the "Defense" industry, and the analytical framework which is now being developed, we hope in time to be able to project, at least in broad fashion, the economic impact of the five-year Defense program.

d. We can encourage our major defense contractors to do the necessary long-range industrial planning which anticipates changes in military procurement and makes the needed corporate provisions for them. For example, we are studying revision of the Armed Services Procurement Regulations to allow, as indirect costs chargeable to Defense contracts, the reasonable costs of such planning for overall development, diversification to non-defense production, etc.

e. We can work with other interested agencies of the Executive Branch and the Congress in all aspects of the "economic impact" problem. To this end, President Johnson on December 21, 1963, ordered the formation of the Committee on the Economic Impact of Defense and Disarmament, chaired by a member of the Council of Economic Advisors and having representation from Commerce, Labor, AEC, NASA, ACDA, OEP, BoB, and Defense. This Committee will be responsible for the coordination of all Federal activities in this field. President Johnson has expressed his personal interest in the Committee's work and has directed that the public, the Congress, and he be kept informed of its activities.

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One final point, while there are several opportunities open to the Defense Department for helpful work in this area, we can do little to mitigate the adverse effects of Defense program changes unless we have a strong and growing economy.

2. Impact on the Balance of Payments

A chronic concern in recent years has been the continuing deficit in the nation's balance of international payments and the impact of our Defense expenditures abroad on that deficit. Since 1958, the deficit in the total U.S. balance of payments has averaged well over three billion dollars annually. During this same period, our gold stocks declined by nearly  $\$7\frac{1}{2}$  billion to a level of  $\$15.6$  billion and liquid liabilities to foreigners (a substantial part of which represents a potential claim on our remaining gold stocks) rose more than  $\$9$  billion to a level of over  $\$25$  billion.

While gross defense expenditures entering the international balance are not the only, or even the primary, factor causing the current deficit, they did amount to  $\$18$  billion over the six-year period, averaging about  $\$3$  billion annually. Therefore, we have been making a special effort during the last three years to reduce the impact of the Defense program on our balance of payments without adversely affecting our combat capabilities or creating hardships for our military personnel and their families.

We have attacked the problem both from the payments (U.S. defense expenditures abroad) and receipts (sales of U.S. military goods and services to foreign countries) sides of the ledger, and as shown in the table below, we have succeeded in reducing the net adverse balance of payments on "military" account by  $\$1$  billion, between 1961 and 1963.

(\$ Billions)

	<u>FY 1961</u>	<u>FY 1962</u>	<u>FY 1963</u>
U.S. Defense Expenditures			
U.S. Forces & Their Support	2.4	2.4	2.5
Military Assistance	.3	.2	.3
Other (AEC, etc.)	<u>.3</u>	<u>.3</u>	<u>.2</u>
Total	3.0	2.9	3.0
Cash Receipts From Sales	- .3	- .9	- <u>1.3</u> a/
Net Adverse Balance	2.7	2.0	1.7

a/ Approximately  $\$300$  million of this amount is an abnormal, one-time, receipt.

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You will note that we were able to hold our overseas expenditures relatively constant despite increased deployments abroad and substantial increases in prices and wages in foreign countries. Cash receipts from the military sales to other countries were increased from \$320 million in fiscal year 1961 to \$1,335 million in fiscal year 1963.

Last July President Kennedy in a message to the Congress, announced a new Government-wide program designed to cut our overall payments deficit. Included in this program were measures intended ultimately to reduce the net adverse balance on military account to approximately \$1.4 billion annually. Here are some of the ways we plan to achieve the new goal:

a. Insofar as possible, the military assistance offshore procurement program will be limited to the fulfillment of prior commitments. Implementation of this policy should, in coming years, result in a sharp cut in the foreign exchange costs of this program, which are still running about \$100 million annually.

b. Certain functions now being performed by U.S. forces will be shifted to indigenous forces as soon as they are capable of assuming them. For example, in the next few years, we hope to transfer some of the air defense responsibilities we now carry in Spain and Japan to the forces of those countries, thus permitting us to withdraw some of our forces back to the U.S.

c. Several steps have been taken to reduce U.S. overseas headquarters and logistics support activities. In many cases these actions will permit significant reductions in personnel with concomitant savings in foreign exchange costs. I will have more to say about these reductions when I discuss overall employment and manning levels in the section of my statement dealing with the Cost Reduction Program.

d. We are making a very intensive effort to increase our receipts from military sales. While a number of countries have made or are contemplating purchases of U.S. military goods and services, by far the most important in value in our agreement with the Federal Republic of Germany which I mentioned earlier. Last fall this agreement which is producing about \$650 million a year in receipts was extended to cover the period through the end of calendar year 1964. Italy has purchased over \$200 million of U.S. military equipment as the first step in a longer-range plan to offset U.S. military foreign exchange costs in that country. We expect that our current world-wide sales effort in cooperation with U.S. defense manufacturers will result in still more agreements.

e. Finally, in addition to the results being obtained from direct measures such as those described above, we have additional reasons for expecting that the net adverse balance on the "military account" can be

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held to manageable levels in the future. The far more capable weapon systems and equipment now becoming operational, especially in the tactical air and airlift forces, should permit additional redeployments to the United States. In view of the pressure on our balance of payments, we are vigorously searching out these opportunities.

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## II. STRATEGIC RETALIATORY FORCES

The Strategic Retaliatory Forces are designed to carry out the long-range strategic mission and to carry the main burden of battle in general nuclear war. These forces include the long-range bombers, the air-to-ground and decoy missiles, and the refueling tankers; the land-based and submarine-based strategic missiles; and the systems for their command and control. They do not include certain other U.S. nuclear forces capable of reaching targets well inside the Communist Bloc - namely, the deployed tactical air units and carrier-based attack aircraft. Although the targeting of these forces is coordinated with those of the Strategic Retaliatory Forces, they are not taken into account in computing the requirements for the latter because they are intended primarily for other purposes.

### A. THE REQUIREMENT

The size and character of the Strategic Retaliatory Forces are influenced importantly by the basic strategy they are designed to support. This strategy has been the subject of a great deal of public discussion during the last year - as it most properly should be, considering its grave importance. But the wide differences in perspective that this discussion has revealed would seem to indicate that we have failed to convey, at least to certain important sections of the American public, the basic fundamentals of the strategic problem confronting our Nation in this nuclear age.

At one extreme there are the proponents of the "overkill" theory who argue that the United States already has enough nuclear weapons to destroy all of the major cities of the Soviet Union several times over, even after absorbing the first blow and that, therefore, no further investments in the Strategic Retaliatory Forces are required or can be justified. At the other extreme there are the proponents of what one might call the "full first strike" theory who believe that we should build a strategic force that would enable us, if we struck first, to so reduce Soviet retaliatory power that the damage it could then do to U.S. population and industry would be brought down to an "acceptable" level, what ever that might be.

The proponents of the "overkill" theory would, in effect, restrict our strategic forces to those required for retaliation against cities only - with the calculation assuming near optimum conditions. This is not a new concept. I understand that it has been debated within the Defense Department for many years before I came to the Pentagon, but I know of no responsible official within the Department who would support it today. To serve as a maximum deterrent to nuclear war, our Strategic Retaliatory Forces must be visibly capable of fully destroying the Soviet society under

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all conditions of retaliation. In addition, in the event that such a war is forced upon us, they should have the power to limit the destruction of our own cities and population to the maximum extent practicable.

It is quite likely that the Soviet Union, in an attack upon the U.S. and Western Europe would not fire all of its strategic nuclear weapons in a "salvo launch". Regardless of whether the Soviets struck first at our cities or first at our military installations or at both simultaneously, it is probable that the launching of their bombers and missiles would extend over a sufficient period of time for us to receive the first blow, to strike back not only at Soviet cities, if that be our choice, but also at the elements of their forces that had not yet been launched. To achieve this capability, we must have a force considerably larger than that which might be needed simply to destroy Soviet cities.

Believers in the "overkill" theory, however, argue that the U.S. would have already been gravely damaged by the initial attack, that it would be very difficult to destroy the enemy's residual force, and that in any event we could not know which of their missiles had not been fired and which were the "empty holes". Therefore, they conclude that we should not even try to destroy the enemy's residual forces.

Certainly, the U.S. would be greatly damaged by the initial wave of a nuclear attack. And certainly, as time goes on and the Soviet Union continues to harden its missile sites and continues to build missile-firing submarines, it will become increasingly difficult to destroy a substantial portion of the residual forces. I have made no attempt in any of my statements to the Congress to "sugar-coat" these hard facts of life in the nuclear age. Indeed, I was chided in some quarters for applying the term "grim prospect" to this reality. But it is one thing to recognize the facts of life; it is quite another to throw up one's hands and not even make the attempt to save what we can of our Nation and our society.

Over the last two and one-half years we have made many comprehensive studies of alternative U.S. strategic retaliatory force structures employed in a nuclear exchange with a wide range of possible Soviet forces and under a wide variety of assumptions pertaining to the outbreak of war and U.S. and Soviet operational factors. In every pertinent case we found that forces in excess of those needed simply to destroy Soviet cities would significantly reduce damage to the U.S. and Western Europe. And the extent to which damage to ourselves can be reduced depends importantly on the size and character of our own forces, particularly the surface-to-surface missiles such as MINUTEMAN that can reach their targets quickly. I will discuss this latter aspect in greater detail later in the statement in connection with the analysis of the overall adequacy of the Strategic Retaliatory Forces we recommend for the fiscal year 1965-69 period.

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But even an assured and persuasive "cities only" capability would require forces much larger than those implied by the "overkill" theory. It is not simply a matter of calculating the number of "Hiroshima equivalents", i.e., 20 kilotons equals 100,000 fatalities and, therefore, 10 megatons equals 50 million fatalities. Carried to that extreme we would need just one B-47 loaded with one 10 megaton weapon. Obviously, many other factors must be taken into account: numbers of targets and their defenses, numbers of weapons required to saturate defenses or to assure penetration, damage to our forces from enemy attack, the readiness and reliability of our own weapons, etc.

Each of these factors involves varying degrees of uncertainty, particularly when we are projecting our forces into the future. And, to cover these uncertainties, extra insurance must be provided in the program. We must be completely sure, and the Communists must be completely sure, of our ability at all times to retaliate decisively against Soviet cities, even under the worst of circumstances.

While a "cities only" strategic retaliatory force would, in our judgment, be dangerously inadequate, a "full first strike" force, as I defined it earlier, is, on the basis of our estimates of the Soviet nuclear strike forces in the fiscal year 1967-69 period, simply unattainable. Moreover, I know of no responsible Pentagon official, certainly none of the Joint Chiefs of Staff, who proposes such a force.

As I pointed out last year, the Soviets are hardening some of their ICBM sites and are building missile-launching submarines. Although we could have an effective capability to sink enemy submarines in a protracted war of attrition at sea, we do not appear to have any realistic prospect of being able to destroy the major part of a Soviet submarine missile force in one quick first strike. Neither could we count, with any reasonable degree of assurance, on destroying all or almost all of the Soviet's hardened missile sites, even if we were to double or triple our forces. Furthermore, it is highly doubtful that we would be able to achieve the necessary tactical surprise in the kinds of crises in which a "first strike" capability would be relevant.

Finally, a "full first strike" capability would have to be accompanied by vast programs of anti-missile, anti-bomber, and civil defense. Even then our calculations show that U.S. fatalities would still run into tens of millions while in Western Europe fatalities would be very much higher. Thus, the paramount conclusion supported by all of our studies is that for any level of force we might practicably build, and even under the most favorable circumstances to us, a nuclear exchange between the U.S. and the Soviet Union would do enormous damage to both sides.

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Thus, a "damage-limiting" strategy appears to be the most practical and effective course for us to follow. Such a strategy requires a force considerably larger than would be needed for a limited "cities only" strategy. While there are still some differences of judgment on just how large such a force should be, there is general agreement that it should be large enough to ensure the destruction, singly or in combination, of the Soviet Union, Communist China, and the Communist satellites as national societies, under the worst possible circumstances of war outbreak that can reasonably be postulated, and, in addition, to destroy their war-making capability so as to limit, to the extent practicable, damage to this country and to our Allies.

The forces recommended to provide this capability through fiscal year 1969 are shown on Table 2.

#### B. PRESENT U.S. STRATEGIC RETALIATORY CAPABILITIES

By June of this year the number of ICBM and POLARIS missiles will, for the first time, just about equal the number of manned bombers in the force. During the three-year period from end fiscal year 1961 through end fiscal year 1964, the number of weapons in the alert forces will have been increased about two and one-half times and the megatonnage of these weapons almost three times, even though 450 B-47's will have been phased out of the force during the same period.

The Soviet Union by mid-1964 is expected to have a total of between [REDACTED] on launchers, [REDACTED] submarine-launched ballistic missiles, 180-205 heavy bomber and tanker aircraft, and 940-975 medium bomber and tanker aircraft, plus about [REDACTED] IRBM/MRBM missiles on launchers. The Soviet Union is just beginning to harden its ICBM's, IRBM's, and MRBM's. Most of our land-based missiles are installed in hardened sites and our POLARIS missiles, of course, have a much greater range than the Soviet submarine-launched missiles, most of which are in diesel-powered boats, and all of which presently have to be fired while the submarine is surfaced.

On the basis of these data, I can again tell this Committee--"There is no question but that today our strategic retaliatory forces are fully capable of destroying the Soviet target system, even after absorbing an initial surprise attack."

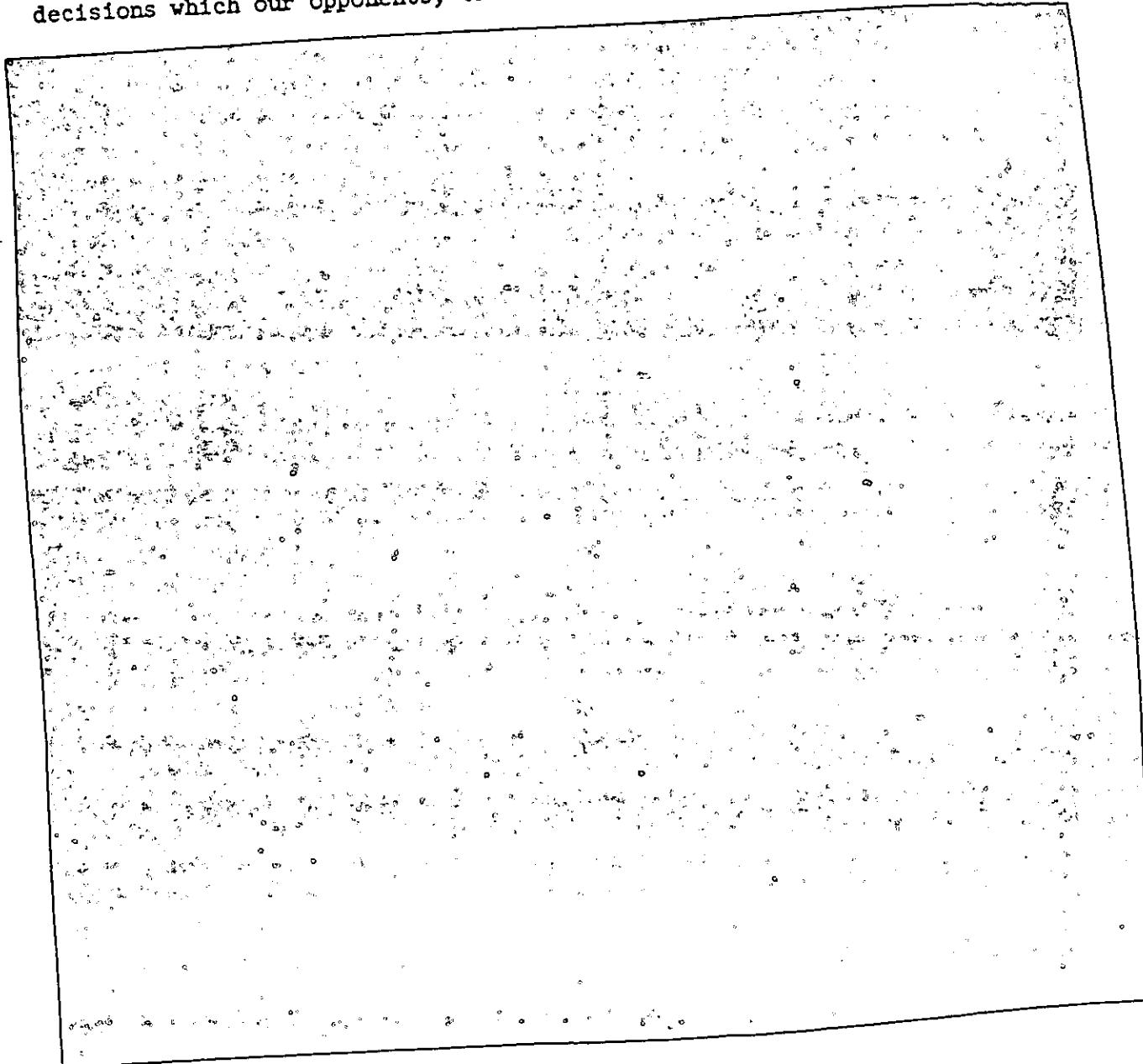
#### C. FUTURE STRATEGIC RETALIATORY FORCES

One of the major determinants of the size and character of our future Strategic Retaliatory Forces is, of course, the size and character of the strategic forces and defensive systems our opponents are likely to have over the next several years. As I pointed out last year, because of

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the long leadtimes involved in bringing strategic weapon systems to operational status, we must plan our forces well in advance of the time when they will be needed and, indeed, we now project our programs at least five years ahead. For the same reason, we must also project our estimates of the enemy's forces over at least the same time period. These longer-range projections of enemy capabilities must necessarily be highly uncertain, particularly since they deal with a period beyond the production and deployment leadtimes of enemy weapon systems. We are estimating capabilities and attempting to anticipate production and deployment decisions which our opponents, themselves, may not as yet have made.



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With these estimates of Soviet forces as the background, I would now like to discuss the Strategic Retaliatory Forces we propose to build and maintain through fiscal year 1969.

#### 1. Bomber Forces

As you can see from Table 2, we plan to continue a mixed force of missiles and manned bombers throughout the entire planning period, fiscal years 1965-69. Although most of the aiming points in the Soviet target system can best be attacked by missiles, the long-range bombers will continue to be used in the follow-up attack, particularly against hard missile sites and against the targets which need not be attacked within minutes, e.g., weapon storage sites.

The present B-52 and B-58 forces will be continued through at least fiscal year 1969 with only a slight reduction in the number of B-58's, reflecting expected attrition. The B-47 force will be phased out by the end of fiscal year 1966 on the same schedule I presented to you last year. All available HOUND DOG's would be retained in the force through at least fiscal year 1969 on approximately the same schedule presented to you last year.

Although no new B-52 bombers have been procured since fiscal year 1961 (with last delivery in fiscal year 1963), substantial funds have been and will continue to be required for those aircraft modifications needed to keep the force both safe and effective. Through the current fiscal year, \$1.6 billion will have been invested in this program for structural strengthening and newly developed equipment designed to enhance the B-52's ability to perform its combat mission and adapt to new tactical concepts, e.g., low-level penetration. An additional \$306 million is requested for such modifications in fiscal year 1965 and we are tentatively programming about \$270 million more for this purpose in fiscal year 1966. The fiscal year 1965 B-52 modification program includes correction of strength and fatigue deficiencies in all the aircraft (except, for the present, the B-52B) and the installation of new electronic countermeasures equipment.

Thus, by the end of fiscal year 1969, we would still have a total of about 700 operational bombers in the force and almost 500 HOUND DOG missiles. Half of the bombers will continue to be maintained on a 15-minute ground alert with a small number on airborne alert. As you know, we already have an on-the-shelf capability (engines and other spare parts) to fly one-eighth

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of the B-52 force on airborne alert for about one year, but we will continue to need the special provision contained in Section 512B of the Fiscal Year 1964 Defense Appropriation Act to pay for the operating costs if we have to do so. This is the provision which authorizes the Secretary of Defense, upon determination by the President that such action is necessary, to provide for the cost of an airborne alert as an excepted expense.

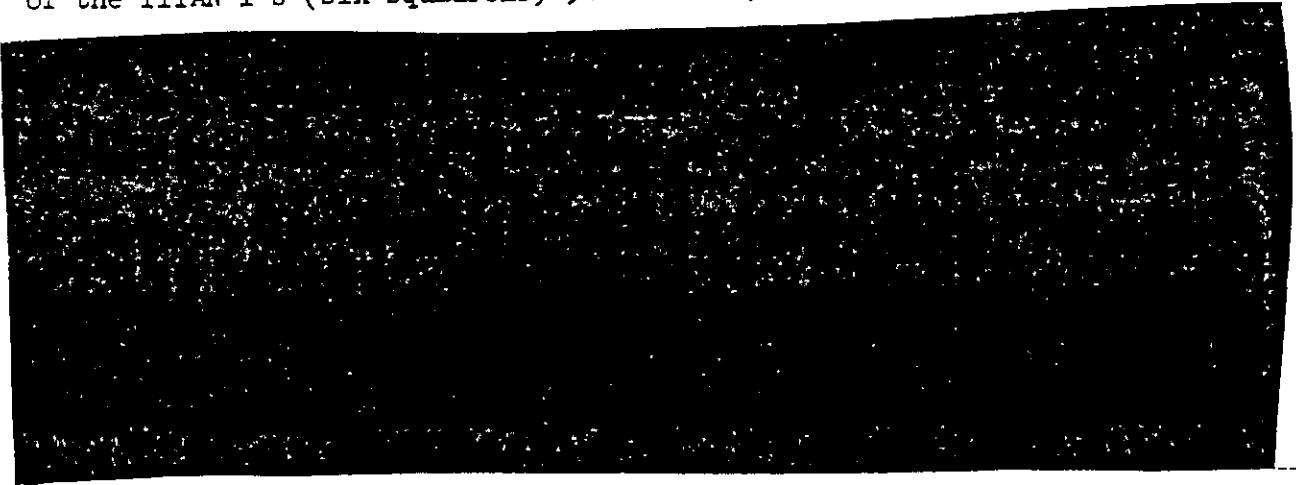
Although we have yet to use the financial provisions of this Section, we have from time to time, notably during the early phases of the Cuban crisis in the fall of 1962, temporarily increased the scale of airborne alert operations. The importance of this provision to the survivability of the manned bomber force will increase as the Soviet Union acquires more nuclear-powered missile-firing submarines since we could expect to receive very little, if any, tactical warning of a submarine-launched missile attack. This provision should certainly be retained in the law.

## 2. Surface-to-Surface Missiles

Our strategic missile forces, which almost tripled in fiscal year 1963 and will have more than doubled again in fiscal year 1964, will increase more slowly during the fiscal year 1965-69 period when we will be modernizing the force and replacing first generation missiles.

### a. ATLAS and TITAN

Last year we had planned to phase out gradually the first three squadrons of ATLAS ICBM's (27 ATLAS D missiles) during the three-year period, fiscal years 1966-68. All the TITAN's were to have been retained in the force throughout the programmed period. As shown on Table 2, we now propose to phase out all of the ATLAS D's in fiscal year 1965, all of the ATLAS E's (three squadrons, 27 missiles) in fiscal year 1967, and all of the TITAN I's (six squadrons, 54 missiles) in fiscal year 1968.



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Since the MINUTEMAN force is increasing rapidly, the need for these slow reacting and highly vulnerable older missiles is declining. Their contribution to the planned force will no longer be worth their very high cost of operation and maintenance, estimated at about \$1 million per year per missile, compared with only about \$100,000 per year for a MINUTEMAN.

b. MINUTEMAN

We had also planned last year a program of 1,300 MINUTEMAN by the end of fiscal year 1968 consisting of 800 MINUTEMAN I's and 500 MINUTEMAN II's. The first 160 MINUTEMAN were in place at the end of fiscal year 1963. By June of this year we expect to have 600 in place, and by June, 1965, 800. Funding for the first increment of 150 MINUTEMAN II's was included in the fiscal year 1964 budget and these are scheduled to be in place by the end of fiscal year 1966.

With another year of experience behind us, we are now proposing a major revision in the planned MINUTEMAN force, a revision which we believe will increase combat effectiveness, in terms of "kill" capability, by [redacted] and which will cost about \$510 million more through fiscal year 1969.

[redacted]

MINUTEMAN I and MINUTEMAN II squadrons will be integrated into a single system through the "internetting" of their communications and control systems, thus greatly enhancing the targeting flexibility of the force as a whole. This will be achieved both by retrofitting 400 of the 800 I missiles in the first five wings with MINUTEMAN II, and by co-locating an additional 250 MINUTEMAN II with those five wings, as shown in the table below:

[redacted]

The first wing of the MINUTEMAN II [redacted] authorized in fiscal year 1964 is being separately sited.

MINUTEMAN II, as now conceived, will provide increased range or payload; [redacted]; a flexibility in the choice of eight preassigned targets [redacted] the capability of being [redacted]

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launched by radio from an airborne command post; and a hardened power supply permitting a post-attack

[REDACTED]

To get these major revisions in the MINUTEMAN program underway promptly and in an orderly fashion, we propose to start only 50 new silos in fiscal year 1965 [REDACTED] planned last year. Essentially, the choice is between: (1) a faster build-up with a slower rate of retrofit of the earlier model with the MINUTEMAN II; and (2) a slower rate of build-up with a faster rate of retrofit.

We have tentatively programmed the [REDACTED] new MINUTEMAN silos

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a little later on in connection with my evaluation of the adequacy of the proposed Strategic Retaliatory Forces.

One final matter concerning the MINUTEMAN program - last year I informed the Committee that the Air Force had called to my attention very late in our review of the fiscal year 1964 budget a possible cost increase of as much as \$400 million in fiscal years 1963 and 1964. We have now determined that this cost increase will amount to about \$175 million. Reprogramming actions covering fiscal year 1963 increases were approved by the Congress last spring. Reprogramming actions covering fiscal year 1964 increases are being forwarded to the appropriate committees.

c. POLARIS

The POLARIS forces shown on Table 2 are on nearly the same schedule discussed here last year. The more rigid inspection procedures put into effect after the loss of the THRESHER have delayed the actual and estimated operational dates of SSBN's numbers 10 through 23 for an average of about  $2\frac{1}{2}$  months. As a result, we now estimate that there will be 256 POLARIS missiles in the operational force at the end of the current fiscal year, compared with 288 missiles estimated a year ago. However, this modest slippage will be fully made up during fiscal year 1965 and by the end of that year we will be back on the original schedule.

The last six of the planned fleet of 41 submarines were fully funded in the fiscal year 1964 budget. Nine POLARIS submarines carrying 144 missiles were deployed at sea by the end of fiscal year 1963. Sixteen submarines carrying 256 missiles will be in the operational force by June of this year and the entire force of 41 submarines and 656 missiles will become deployable by the end of fiscal year 1967.

The first five POLARIS submarines are equipped with the 1,200 n.m. A-1 missile. The 6th through the 18th submarine will be equipped with the 1,500 n.m. A-2 missiles, and the 19th through the 41st, with the 2,500 n.m. A-3. Last year we had planned to equip eventually all 41 submarines with the A-3 missile and to begin this summer with the replacement of the missile tubes of the first five submarines in order to accommodate the larger missile. We still plan to replace the A-1 missile with A-3's but we do not now believe that it will be necessary to replace the A-2's with A-3's, at least before 1970. While the range of the A-3 is considerably greater than the A-2, a large fraction of the Soviet Bloc targets are well within the range of the latter. Thus a force consisting of 28 submarines equipped with A-3 missiles and 13 submarines equipped with A-2 missiles should be able to handle effectively the targets assigned to the POLARIS force.

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During 1970 the POLARIS force will commence its second overhaul cycle. At that time, if conditions warrant, the A-2 could be replaced with the A-3. We estimate that a total of about \$425 million can be saved through fiscal year 1969 as a result of the postponement of the A-2 retrofit.

The presently planned POLARIS force will require a supporting fleet of six tenders, six resupply ships, and a number of floating dry-docks and other support ships. A total force of six tenders has been programmed in order to ensure that at least five of the six will be available for continuous deployment for the support of the five squadrons into which the POLARIS force will be organized. Five tenders and four supply ships were funded through fiscal year 1964. The fiscal year 1965 program contains \$63 million for the sixth tender and \$8 million for the conversion of another resupply ship. The last resupply ship is programmed for fiscal year 1966. This program is the same as presented last year.

d. Dependability of Strategic Systems

I want to draw a sharp distinction between mechanical reliability, in the sense of the incidence of mechanical malfunction, and the dependability with which a vehicle in the Strategic Retaliatory Forces reaches the target area with a weapon which will detonate. Reliability in this sense is only one of the factors determining system dependability. Equally important are the factors of system alert, survivability, and penetration. The system alert rate is the proportion of the unit equipment that can be maintained on alert at all times; the survival rate is the proportion of the force which can be expected to survive, in operating condition, an initial enemy attack; and the penetration rate is the proportion of the launched force which can be expected actually to reach the target area.

All of these factors must be taken into account in measuring the system dependability of the various elements of our Strategic Retaliatory Forces. Shown in the table below is a simplified calculation which applies the four factors of system alert, survivability, reliability and penetration to B-52 and MINUTEMAN missile forces of approximately equal size in order to estimate the number of each weapon system which may be expected to reach the target area under both optimistic and pessimistic assumptions. To reflect this range of circumstances we have used, in most cases, a range of operational factors; the greater the uncertainty, the greater the range.

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	<u>B-52</u>	<u>MINUTEMAN</u>		
	<u>Lower Estimate</u>	<u>Upper Estimate</u>	<u>Lower Estimate</u>	<u>Upper Estimate</u>
Unit Equipment of the Force				
System Alert Rate				
Number on Alert				
Survival Rate				
Number Surviving				
Weapon Sys. Reliability				
Rate				
Number to Target Area				
Penetration Rate				
Number Penetrating Target Area				
System Dependability				

As shown on the table we start with a total of 630 B-52's. However, only 50 percent or 315 of these aircraft can be expected, under normal conditions, to be maintained on ground alert ready to be launched within 15 minutes, the warning time we can expect from BMEWS. While some of the non-alert aircraft may survive the initial attack, we cannot count on them for the initial retaliatory strike.

In the case of the solid fuel, quick reacting MINUTEMAN, we must also expect that at any given time some missiles would be in training or undergoing maintenance or modification. Accordingly, we have used a system alert rate of [redacted] percent. This is a reasonable range of estimates. During a recent unannounced operational readiness inspection of the MINUTEMAN Wing I, [redacted]. The remaining 25 were undergoing technical order changes or scheduled maintenance. [redacted] ready missiles, the combat crews were actually able to count down [redacted]. For POLARIS, another solid fuel missile, statistics drawn from [redacted] submarine patrols indicate that [redacted] or more of the 16 missiles aboard each submarine or patrol were ready for launch at all times.

But much more important, MINUTEMAN missiles are dispersed, one to a site, in silos hardened to [redacted], and are, therefore, far less vulnerable to a surprise nuclear attack than the aircraft on the ground. And this, as I have pointed out on previous occasions, is one of our greatest concerns with respect to manned bombers. If the enemy were

a/ Under certain circumstances this number might be higher, particularly for the bombers, but the higher rate cannot be depended upon.

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successful in placing its ballistic missile-firing submarines on station or if the BMEWS malfunctioned and did not provide the 15 minutes of warning we expect, a substantial number of even the alert bombers might be caught on the ground and destroyed in the initial enemy attack. A single H-bomb on a SAC base will destroy all the bombers on that base. This great uncertainty is reflected in the wider range of survival rates we have applied to the B-52's in our calculation, as compared with MINUTEMAN.

With regard to reliability, the B-52's have, of course, been in the force for many years, and we have acquired a considerable amount of operational experience. Therefore, the reliability rate of the surviving alert force can be established within a relatively narrow range, [REDACTED]

[REDACTED] The MINUTEMAN, on the other hand, is just coming into the force and we have as yet acquired very little operational experience with this missile. As of late January, we had [REDACTED] operational test firings with [REDACTED] successes, which would indicate an in-flight reliability rate of [REDACTED] percent. However, this is far too small a number of firings upon which to base a firm estimate of reliability. Accordingly, for purposes of our calculation we have used a wide range of [REDACTED] percent.

Even though the Soviet Union may be deploying an anti-missile defense at two cities, we can be sure as a result of our penetration aids and numerical superiority that once our missiles are launched and on their way they would penetrate their targets. We do not have this same assurance with regard to the B-52's. The Soviet Union, as I indicated earlier, has very extensive anti-bomber defenses and we must assume that our B-52's would suffer some losses in penetrating to their targets. Reflecting the uncertainties involved here, we have used for this calculation a range of [REDACTED] percent.

[REDACTED] I am not suggesting that the choice between bombers and missiles can be made on the basis of dependability alone. Each of these systems has advantages and disadvantages that are not reflected in dependability calculations. The bombers, for example, can carry multiple weapons and have the opportunity to destroy more than one target if they penetrate. Surface-based missiles, however, can reach their target far more quickly, and this is of critical importance in attacking some types of targets.

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But two striking conclusions emerge from these calculations. The first is that in both the optimistic and pessimistic cases a higher proportion of the MINUTEMAN force than of the B-52 force can be expected to reach its targets. While this conclusion depends upon the particular ranges of rates assumed, I believe the assumptions made are realistic.

The second striking conclusion is that we can predict the results of a MINUTEMAN attack with greater confidence than the results of a B-52 attack. I believe that this conclusion has general applicability to comparisons between aircraft and surface-based missiles. The survivability of the soft bombers and their ability to penetrate enemy defenses are intrinsically more difficult to estimate in advance than the factors affecting missile dependability.

Although we have used a range of reliability rates of [redacted] percent for the MINUTEMAN in this calculation, we believe that the reliability [redacted]

[redacted] to the upper limit of the range. The POLARIS A-2, which is much further along than MINUTEMAN, has had [redacted] successful shots out of a total of [redacted]. The MINUTEMAN at the present stage of operational testing compares favorably with the POLARIS A-2 experience at the comparable stage of its test program. Most new weapon systems have a low reliability when they first become operational - aircraft as well as missiles (you will recall our recent difficulties with the B-58 and the "Century" series fighters). However, the MINUTEMAN and the POLARIS A-2 appear to be exceptions to this rule.

As we continue our operational tests of the strategic missiles we plan to maintain in the force beyond fiscal year 1968, we expect these reliability rates to increase still further. [redacted]

[redacted] To ensure that these reliability goals are achieved and confidence in the results fully established, we are allocating a large number of missiles for operational test firings, principally during the next 18 months, as shown below:

ATLAS F	25	MINUTEMAN WING I	25	POLARIS A-2	24
TITAN II	25	MINUTEMAN WING II-V	50	POLARIS A-3	50
		MINUTEMAN WING VI	50		

Moreover, to assure continued reliability of the systems during operational deployment, follow-on operational tests are planned. We tentatively estimate that up to 10 percent of the MINUTEMAN and POLARIS inventory will be expended annually in this follow-on operational test program.

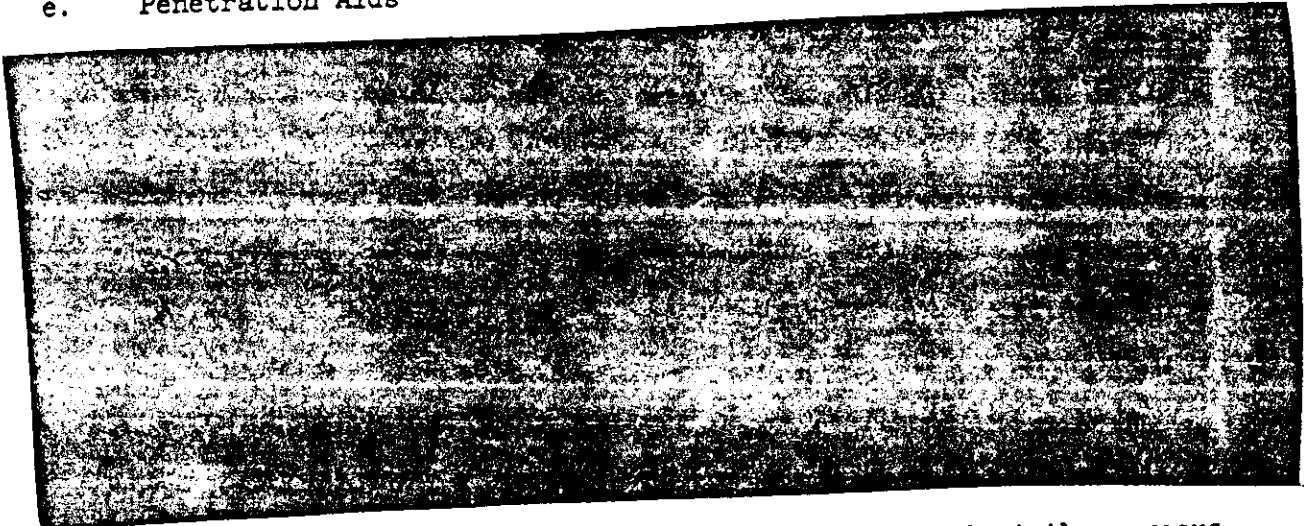
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We should not expect and, indeed, we should not attempt to achieve 100 percent reliability in our strategic missiles or, for that matter, in any other weapons system. The cost of doing so, if it could be done at all, would be prohibitive, and beyond a certain point not worth the cost in view of the other important factors affecting systems dependability. Instead, we simply buy more missiles and thus provide a combat reserve, just as we do in the case of aircraft, to cover the targets of those vehicles which abort for any reason whatsoever. In this respect, the MINUTEMAN II with its multiple target flexibility will contribute greatly to the overall combat effectiveness of the force, as I indicated earlier.

Therefore, on the basis of the evidence already in hand and our plans for the future, I have no hesitancy whatsoever in saying that the missile force we have programmed can be depended upon to carry out its presently assigned military mission under all of the conditions we can foresee, and indeed, that we can predict the results of a missile attack with greater confidence than those of a bomber attack.

e. Penetration Aids



A great deal of progress has been made during the last three years, particularly in gaining a better understanding of the physical effects which accompany the re-entry of ballistic missile warheads into the atmosphere and various methods which might be used to simulate these effects and to confuse the anti-ballistic missile defense system in other ways. There are a large number of different techniques which can be used - [redacted]

[redacted]  
Each has its particular advantages and disadvantages. However, many of the shortcomings can be overcome to a considerable extent by employing these techniques in appropriate combinations, and this is what we are doing

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wherever possible.

The penetration aids research program is a costly one requiring much sophisticated instrumentation at the test ranges. Accordingly, we have made every effort to take advantage of related work being done in connection with our own R&D efforts on anti-ballistic missile defense, particularly the NIKE-ZEUS, the NIKE-X, and DEFENDER projects. Obviously, the problems of the offense are the converse of those of the defense, and information obtained from our penetration aids research has greatly influenced our thinking on the anti-ballistic missile defense problem, which I discuss in the next section of my statement.

### 3. Other Strategic Retaliatory Forces Programs

Shown in the next to the last block of Table 2 are a number of other systems supporting the Strategic Retaliatory Forces. Except for the RB-47, RC-135, and REGULUS, these forces are the same as those presented to the Committee last year.

#### a. RB-47

Last year we programed three squadrons of RB-47's through fiscal year 1965. One of these squadrons (15 aircraft) was utilized for weather observation for the RB-47 bomber force. Other systems now available have eliminated the need for this squadron and it was deleted from the force last year. The remaining 30 RB-47's will be phased out in fiscal year 1966, as originally scheduled. By that time we will have the full planned force

~~RC-135's in operation.~~

#### b. REGULUS

We now have five operational REGULUS submarines with a total of 17 missiles aboard. Three of these submarines (8 missiles) will be phased out in fiscal year 1965 and the remaining two in fiscal year 1966.

#### D. COMMAND AND CONTROL

Achievement of our overall national objectives requires that our Strategic Retaliatory Forces be kept continually under the control of the constituted authorities, from the President on down to the commanders of the forces - before, during, and after a nuclear attack. To support this requirement, we are developing a world-wide military command and control system, both on the national level and within our deployed military forces. The National Military Command System provides intelligence and communications

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for the high-level command at all levels of crises as well as a number of alternative locations for the President or others in the national chain of command. These alternate facilities include widely separated and protected land sites, dispersed command ships, and aircraft.

At this point I would like to discuss only those portions of the system included in the Strategic Retaliatory Forces program. I will discuss the overall system and other elements in the section of my statement dealing with General Support.

Two years ago we initiated a study of the feasibility of building a deep underground support center for the Strategic Air Command. Initially, we proposed \$31 million in the fiscal year 1964 budget to begin construction this year. Subsequent study indicated that the center would cost more than previously estimated (\$220 million vs. \$85 million) and that serious operational problems were likely to be encountered. As a result, last April the Air Force and the JCS advised me that the project should not go forward at this time, a judgment in which I concurred. The funds were not included in the fiscal year 1964 Military Construction Appropriation Act.

We do intend to continue development of improvements to the airborne command system which is already in operation. This system, shown on Table 2, consists [REDACTED] specially equipped KC-135 Command Post aircraft and 36 B-47's equipped as communications relay aircraft. [REDACTED] Command Post aircraft are being re-equipped with an improved integral electronics system which will considerably enhance their overall effectiveness. [REDACTED]

One

of these Command Post aircraft is kept in the air at all times.



#### E. NEW STRATEGIC SYSTEMS

In addition to the MINUTEMAN II which I described earlier, we also have in the R&D program a number of other strategic missile projects - for example, studies and an exploratory development program of an advanced ICBM which was initiated last year. We have been working on such a program related to an advanced sea-based deterrent system since fiscal year 1961.

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We are also studying the possibility of an improved version of POLARIS beyond the A-3 and are doing a great deal of work on improved propulsion, structures, guidance, etc., for land-based missiles which will contribute to the improvement of existing missiles or the design of new advanced missiles.

Also, the Medium Range Ballistic Missile (MRBM) system is being developed for possible use in a European sea-borne force or elsewhere in the world.

We have also included in the fiscal year 1965 budget \$5 million to examine the technical feasibility and military value of possible new advanced strategic aircraft which would serve as airborne missile platforms.

Despite the delay in the B-70 program, caused by technical difficulties encountered with the sealing of the fuel tanks and with the fabrication of the wing-fuselage joint, we plan to continue the test program. The first flight has already been delayed by more than one year; and the cost will be increased by at least \$200 million, from \$1.3 billion to at least \$1.5 billion for the three test aircraft.

Together, all of these projects, which I shall discuss in greater detail later in connection with the Research and Development program, provide for the development of a broad base of technology for future strategic retaliatory weapons systems. One or more may actually reach the production and deployment stage before the end of the programmed period, fiscal year 1969, but until a decision is made to produce and deploy these systems, they are shown only in the R&D program.

#### F. ADEQUACY OF THE PROPOSED FORCES

The Strategic Retaliatory Forces programmed through fiscal year 1969 are, in our judgment, fully adequate to accomplish the objectives which I discussed earlier.

Furthermore, a rapidly increasing portion of this force will consist of hardened and dispersed ICBM's and submarine-based missiles, all with very high probabilities of survival under nuclear attack. The effective offensive power of the force will be further enhanced by the addition of penetration aids and the introduction of the greatly improved MINUTEMAN missiles. Further quantitative increases in the large forces already programmed would provide only marginal increases in capability in relation to their additional cost.

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These conclusions, as I pointed out before, have been tested by a careful analysis of a wide range of alternative U.S. and Soviet forces employed under a wide variety of different assumptions as to the manner in which a strategic nuclear exchange might take place and the operational capabilities of U.S. and Soviet weapon systems, i.e., readiness, survival, reliability and penetration rates. In all such studies, of course, the situations assumed have to be defined by simplifying the assumptions. There are innumerable variables and uncertainties involved in these situations; and, relatively, only a few, although the major ones, can be taken into account in any one analysis. Nevertheless, these studies do provide as good a measure as possible of the relative effectiveness of different size forces under different sets of circumstances.

As I noted earlier, our Strategic Retaliatory Forces under all foreseeable conditions, including a well-planned and executed surprise attack on the United States, must have such an unquestionable capability to inflict destruction on the Soviet Union, that no Soviet planner could ever conclude that such an attack could be other than disastrous to the Soviet Union. This is the ultimate deterrent to a calculated, deliberate Soviet nuclear attack and we must be certain that at all times and under all foreseeable conditions we have at least this minimum capability. Accordingly, we have tested a number of alternative forces against the most pessimistic set of assumptions we could reasonably postulate for the end of the programmed period, 1969. I want to emphasize that these assumptions are so pessimistic that it is most unlikely that they would ever occur simultaneously. For example, the pessimistic case assumed:

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(3)

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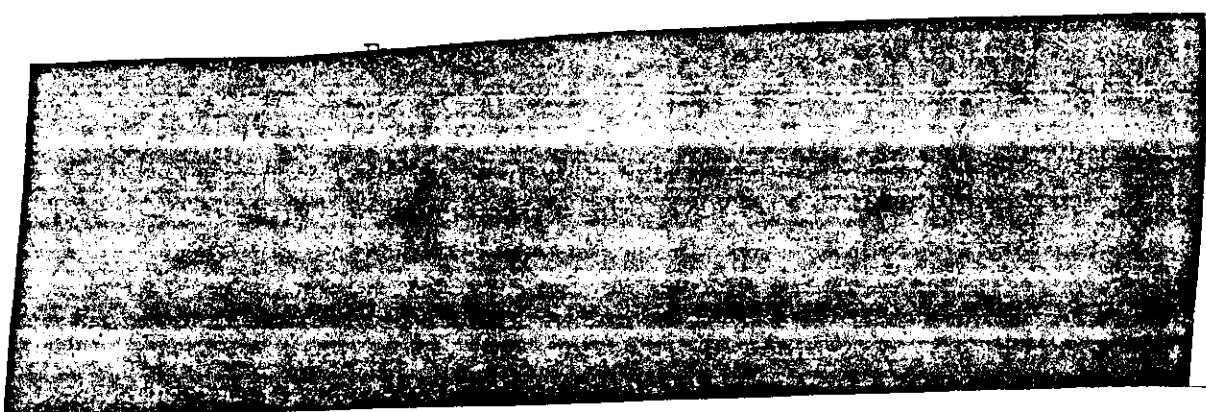
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Even so, our conclusion is that the recommended forces would still have the capability of inflicting very heavy damage on Soviet industrial capacity and population.



As shown in the table below, the results do not vary to any significant degree for alternative MINUTEMAN forces greater than those I am recommending.

SOVIET FATALITIES AND INDUSTRIAL DESTRUCTION  
(Mid-1969)



Thus there is the highest degree of assurance that the recommended forces will have the capability to inflict very heavy damage to the Soviet Union and will provide an extremely strong deterrent against a deliberate first strike attack on the United States.

But, as I noted earlier in my discussion of "The Requirement", our Strategic Retaliatory Forces should also be large enough to destroy the Communists' war-making capability so as to limit, to the extent practicable, damage to this country and to our Allies. There are many facets to this problem, including not only the size and composition of our offensive forces but also the defensive measures available to us, which I will discuss in the next section of the statement.

All of these facets have been considered in our analyses and our conclusion is that, given the size and kind of strategic offensive forces we project both for the Soviet Union and for ourselves, grave damage to both sides in an all-out nuclear exchange could not be avoided under any conceivable circumstances. This would be true no matter how many MINUTEMAN

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missiles (within practical limits) or, for that matter, how many of any other offensive or defensive weapon systems, we were to add to our forces;

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An interesting and important result of these studies was the clear demonstration of the great contribution that an adequate fallout shelter program could make to our damage-limiting capability. The analyses indicated:

- (1) That a properly planned nation-wide fallout shelter program would contribute far more to the saving of lives per dollar than an increase in MINUTEMAN missiles beyond the level we recommend.
- (2) That even if the Soviets were to attack only our military installations, without an adequate fallout shelter program, fatalities from fallout would be very high - about three times higher than they would be with an adequate civil defense program.

Obviously, these judgments are based on our present estimates of the probable make-up of Soviet forces during the program period. As I noted earlier, for the more distant years these estimates must be considered quite tentative since, in part, they rest on assumptions regarding decisions which the Soviet leadership may not as yet have had to make. Our presently planned program retains for us sufficient flexibility to make changes in time to meet any Soviet program shift. We have ample manufacturing capacity for POLARIS and MINUTEMAN, both of which will be in production for some years to come. If more are needed in future years, we should be able to procure them in time.

#### G. FINANCIAL SUMMARY

The Strategic Retaliatory Forces I have outlined will require Total Obligational Authority of \$5.3 billion for fiscal year 1965. A comparison with prior fiscal years is shown below:

(\$ Billions, Fiscal Years)

	<u>1962</u> <u>Original</u>	<u>1962</u> <u>Final</u>	<u>1963</u> <u>Actual</u>	<u>1964</u> <u>Estimated</u>	<u>1965</u> <u>Proposed</u>
Total Obligational Authority	7.6	9.1	8.4	7.3	5.3

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### III. CONTINENTAL AIR AND MISSILE DEFENSE FORCES

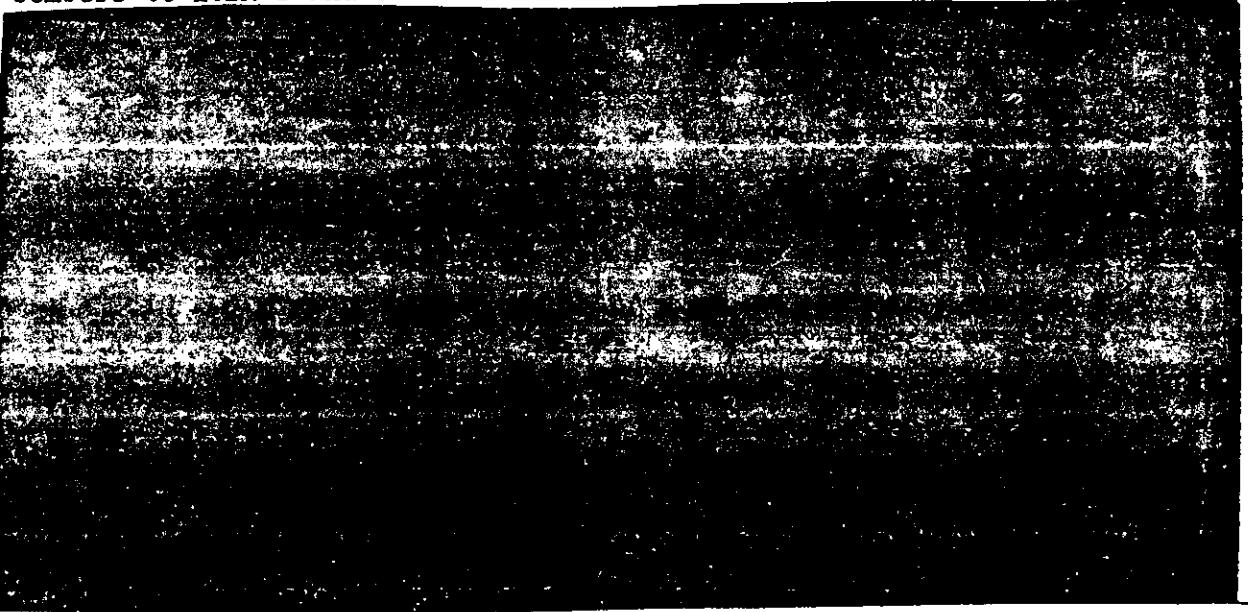
The Continental Air and Missile Defense Forces include those weapon systems, warning and communications networks and ancillary equipment required to detect, identify, track, and destroy unfriendly forces approaching the North American Continent. A substantial part of the anti-submarine forces are organized for continental defense, but all of these forces are included in the Navy's General Purpose Forces.

#### A. THE DEFENSIVE TASK

I believe it is apparent from my discussion of the Strategic Retaliatory Forces that there is a very close relationship between those forces and the Continental Air and Missile Defense Forces. To some extent Strategic Retaliatory Forces can substitute for defensive forces since in carrying out their own mission they can reduce the weight of an enemy follow-on attack upon the United States.

The requirement for defensive forces is also closely related to the size and character of our Civil Defense program, and while I will discuss the details of that program separately, its interaction with the defensive forces will of necessity have to be discussed in this section.

In my past appearances before this Committee I noted that the weight of the strategic threat against the U.S. was steadily shifting from manned bombers to ICBM's and submarine-launched missiles. As I indicated earlier,



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Thus our principal concern in the years ahead continues to be the danger of an ICBM and submarine-launched missile attack, and the main thrust of our defensive efforts should be redirected to meet this rising threat.

Our present continental air and missile defense forces were, for the most part, built during the 1950's and were designed primarily to defend against the manned bomber threat. As a result, today, they provide only a limited capability to reduce the damage of a nuclear attack in which long-range strategic missiles are used. Clearly, we should be recasting our defensive programs to recognize the change in the nature of the threat.

We have made a start in this direction as shown on Table 3. A manual backup to the SAGE system was reconstituted two years ago and is now being replaced with the semi-automatic Backup Interceptor Control (BUIC) system. The manned interceptor forces have been dispersed to additional bases and funds were included in the fiscal year 1964 budget to provide for still further dispersal. [REDACTED]

[REDACTED] capabilities of the BMEWS radar sites are being improved. Selected air defense radars are being modified to give them a capability to detect missiles launched from submarines [REDACTED]. The air defense of southeastern United States has been considerably reinforced by the addition of an interceptor squadron, seventy-two NIKE-HERCULES, 576 HAWK surface-to-air missiles and 7 radar aircraft available for offshore surveillance. We have also initiated the development of a new missile defense system, the NIKE-X, [REDACTED]

With respect to Civil Defense, we have underway a broad program to create a system of shelters, equipped and provisioned to protect the population from the fallout effects of nuclear attack. This program has already produced shelter space for some 70 million individuals.

At the same time we have phased out six SAGE direction centers and one combat center, a number of radars, and five radar picket ships. I will discuss the SAGE centers and land-based radars a little later in connection with our future plans for the Surveillance Warning and Control System. The five radar picket ships (DER) previously in the continental defense forces were required to maintain one ship on station in the Atlantic. However, the heavy seas in the Greenland-Iceland-U.K. barrier

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area caused continuous damage to the DER's and seriously reduced the effectiveness of their radars, and their role has been taken over by radar aircraft.

But these adjustments represent only a beginning on the much larger task of adapting our defensive systems to the future threat. The more fundamental changes hinge on decisions which we have yet to make with respect to the NIKE-X and on congressional action on our Civil Defense Program. Thus there would be little point in further improving our defense against manned bombers unless we concomitantly improve our defenses against the ICBM and submarine-launched missile threat, including the defense of our population against fallout. The Continental Air and Missile Defense Forces Program which we are proposing for the fiscal year 1965-69 period, therefore, must be considered an interim program - pending fundamental decisions on the NIKE-X and on Civil Defense.

B. DEFENSE AGAINST MANNED BOMBERS

As long as the Soviet Union continues to maintain a force of manned bombers capable of reaching U.S. targets, we must continue to support a defense against them. Moreover, since we must assume that the Soviet Union in an attack on the U.S. would strike first with its missiles and then with its manned bombers, our prime concern must be to ensure that the anti-aircraft system has a capability to survive the Soviet missile attack.

1. Semi-Automatic Ground Environment System (SAGE)

As I pointed out last year, the heart of the entire aircraft control and warning network has been the semi-automatic ground environment (SAGE) system, which at that time consisted of 21 direction centers in the United States and one in Canada. None of the U.S. centers were hardened, seven were co-located with SAC forces, and two were located in close proximity to large cities.



Since it was highly impractical to try to harden the entire SAGE system, particularly its communications links, we had no alternative but to construct a backup system which could operate independently of SAGE in the event the latter was seriously damaged or destroyed. Accordingly, we first reconstituted a manual backup to the SAGE system by establishing NORAD control centers at 27 prime radar sites, thereby enabling those facilities to identify enemy aircraft and direct our interceptors against them, in addition to performing their normal search and surveillance functions. Another group of prime radars was provided with a more limited ground control intercept capability and all the U.S. prime radars were linked by a new communications system, so that they could support

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each other even if the SAGE system were destroyed. This effort entailed additional manpower, and fallout protection and shielding for the crews, as well as additional communications and emergency power facilities.

The manual backup phase was completed two years ago and we immediately started the construction of a more effective, semi-automatic Backup Interceptor Control (BUIC) system consisting of 34 stations co-located with prime radars, three of which will be in Canada. The 31 stations in the U.S. will include 20 of the 27 NORAD control centers which will be converted from manual to semi-automatic operation by furnishing them the necessary computers and related equipment. This program was funded in fiscal year 1962-63 and, as shown on Table 3, the first nine centers will become fully operational in fiscal year 1965 and the balance in the next fiscal year.

When the BUIC system is operational, four more SAGE direction centers will be phased out, leaving eleven in the U.S. and one combined combat and direction center in Canada. It should be noted that we are simply providing the necessary backup to SAGE in the form of BUIC rather than in the form of overlapping or redundant SAGE centers. The twelve remaining SAGE direction centers would permit the system to operate, without overlap of sectors, which will be adequate for the essential peacetime and pre-strike control functions. In peacetime we must maintain continuous surveillance of our air space in order to check out all intrusions, and this the SAGE system can do quite well. In the pre-air battle period SAGE could also prevent a Soviet manned bomber or a simultaneous manned bomber-missile attack from catching us by surprise, since the Soviets would have to hold their bombers beyond the perimeter of our radar warning system until after their missile attack was launched. These functions can be performed as well by the twelve SAGE direction centers operating in Mode II, as by any larger number.

But for the trans-attack and post-attack periods, the SAGE system alone would be of questionable value because of its concentration and vulnerability. The twelve SAGE direction centers backed up by the 34 BUIC stations, however, will present a much more viable system, since the BUIC stations will be widely dispersed away from other prime targets and would not offer very profitable targets for ICBM attack. Furthermore, the crews will be provided with fallout protection needed to enable them to function in the post-missile attack environment. The phase-out of the four additional SAGE direction centers will save around \$30 million a year, which, together with the six previously phased out would produce total savings of \$82 million per year.

We propose to phase out two more combat centers in fiscal year 1968, leaving [redacted] The air defense of [redacted]

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Currently, the existing system of [redacted] search radars provides double or triple coverage over most of the country. For the time being, we propose to retain this system pending the integration of the Defense radar net with that of the Federal Aviation Agency, and fundamental decisions regarding other elements of the future manned bomber defense system.

As shown on Table 3, we reduced the total number of search radar sites in fiscal years 1963-64 by 7 through the elimination of 23 old sites (including the 17 I mentioned to you last year) and the addition of 16 new ones to round out the needed coverage. Included in the 16 are 7 new radar sites being established [redacted] in order to provide radar coverage for the BOMARC air defense missiles deployed along our northern border. These 7 radars were planned quite a few years ago but will just be coming into operation during the current fiscal year.

The reduction of [redacted] DEWLINE radars, [redacted] was announced last year. By making certain [redacted] adjustments in equipment configuration, it was possible to close down [redacted] intermediate DEWLINE stations in Canada and eight in Alaska and still provide for adequate early warning. No change is now contemplated in the [redacted] DEWLINE extension radars or in the off-shore radars during the program period.

As I have indicated previously the radar programs I have described must be considered tentative because we are now working with the Federal Aviation Agency (FAA) on a plan to coordinate our radar coverage with theirs. We believe that an internetting of the two systems may permit a sizeable reduction in the total number of radars the Defense Department and FAA have to support. Some redundancy in radar coverage is obviously necessary to enhance the survivability of the system as a whole, but this redundancy should not come about simply because there are two Government agencies requiring radar coverage. The FAA must have a radar network to

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carry out its peacetime function of air traffic control. There appears to be no good reason why these radars cannot also be used by the Defense Department in carrying out its responsibilities.

## 2. Manned Interceptors

As shown on Table 3, the manned interceptor force consists of about 800 all-weather aircraft in the active units committed to the defense of the North American Continent. In addition there are about 550 Air National Guard aircraft, of which a few from each squadron are maintained on runway alert, and a number of Canadian squadrons committed to NORAD.

Funds were requested in the fiscal year 1964 budget to provide additional facilities at 21 existing United States airfields to permit the dispersed deployment of around 25 percent of the active interceptor force for extended periods of time. These dispersal bases now have only a limited capability for the support of interceptor aircraft.

We still plan to retain all available interceptor aircraft in the force throughout the fiscal year 1965-69 period. As shown in Table 3, the number of aircraft will decline gradually because of attrition although by the end of fiscal year 1969 we will still have about 750 interceptors in the active force. The Air National Guard during this period will be considerably modernized by the replacement of the F-86's, F-100's, and some F-89's with F-102's. By the end of fiscal year 1968 the continental defense aircraft elements of the Air National Guard will consist of 200 F-89's and about 350 F-102's and these will be continued through fiscal year 1969.

We believe that this force is appropriate for defense against what we presently foresee as a declining Soviet manned bomber threat. However, if the Soviets should deploy a new long-range bomber, which the intelligence community as a whole does not consider likely, we would have to re-evaluate the size and character of our interceptor force and particularly the need for modernization.

## 3. Possible Future Manned Interceptors

I informed the Committee last year that whether or not the Soviet Union actually deployed a new long-range bomber we intended to make a thorough study of the entire problem of modernizing our manned interceptor force. Such a study was completed by the Air Force last year.

There are actually a number of aircraft already in production, under development, or in operation which could be adapted to the interceptor role, including the F-4, the A-5, the F-111 (TFX), and the C-135B, the last serving as an air-to-air missile platform. Still another possibility

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would be a completely new interceptor (IMI) based upon some of the latest work done on airframes and engines. One of the surprising conclusions of the Air Force study is that any one of these five systems would, for the same total program cost, provide roughly comparable defenses against a fairly wide range of possible bomber threats.

Thus, the selection of an advanced interceptor would most likely have to be based on other considerations, for example, availability, the degree of confidence in system characteristics and in the cost estimates, vulnerability to no-warning and an intensive defense suppression attack, dependence on ground control, usefulness in a TAC role, effectiveness against a supersonic bomber threat, etc. Each of the five alternative systems has its own particular strengths and weaknesses in terms of these "secondary" criteria. Selection of any one of these systems involves some kind of uncertainty. A mixed force of IMI's and C-135's would probably provide the most effective air defense against a large bomber threat, but deployment of both systems would hardly be justified in terms of cost. Against a supersonic bomber threat, the IMI would clearly be superior.

Thus we have a number of good choices for a "follow-on" interceptor and we will continue to have these choices for some time. But until we can better discern the character of the future manned bomber threat and determine the proper balance among the three basic elements of our defensive posture, i.e., defense against manned bombers, defense against ICBM's and submarine-launched missiles, and civil defense, it would be premature to make the choice. Meanwhile we are proceeding with the production and improvement of the F-4, the development of the F-111 and development of a number of subsystems which might be needed by a new interceptor.

#### 4. Surface-to-Air Missiles

As I pointed out last year the Air Force's BOMARC missiles are concentrated on just eight soft bases and therefore are highly vulnerable to an initial ICBM attack. The present BOMARC force is made up of 195 BOMARC-A and 188 BOMARC-B's on launchers. Six of the eight BOMARC bases are partially equipped with the BOMARC-B. The BOMARC-A's have a much shorter range than the BOMARC-B's - 200 miles vs. 400 miles; the A's have no low altitude capability while the B's do. Accordingly, we now propose to phase out the "A" missiles in fiscal year 1965 with a saving in annual operating costs of \$10 million. We propose to retain the "B" missiles in the force through the programming period, as shown on Table 3. The 188 BOMARC-B's will be distributed over six bases.

NIKE-HERCULES continues to be a very useful air defense weapon system. Together with the Missile Master and Birdie control systems, NIKE-HERCULES can operate independently of SAGE and will also be able to

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operate together with the BUIC semi-automatic backup system. Accordingly we plan to continue the HERCULES force intact through at least fiscal year 1969, but with the Army National Guard taking on an increasing share of the on-site operation. By the end of fiscal year 1965 the Guard will be operating [REDACTED] NIKE-HERCULES missiles and the active Army [REDACTED] and we tentatively plan to continue this division of responsibility throughout the program period, as shown on Table 3.

The older NIKE-AJAX operated by the Army National Guard will be completely phased out this fiscal year.

In the fall of 1962, in response to the Cuban crisis, we added 72 NIKE-HERCULES to the Continental Air and Missile Defense Forces for deployment in Florida, raising the total number of NIKE-HERCULES from [REDACTED] at the end of fiscal year 1962 to [REDACTED] by the end of fiscal year 1963, the number we now plan to continue in the force. At the same time we added [REDACTED] of the HAWK [REDACTED] to the Continental Air and Missile Defense Forces for deployment in Florida and these missiles will also be continued in the forces through the programming period.

I informed the Committee last year that we proposed to re-locate 20 NIKE-HERCULES batteries either to the Midwestern part of the U.S. to defend our hardened ICBM forces and military control centers, or to the Southeast to protect cities in that area. These units are now located at soft SAC bases and at Thule, Greenland. Since the soft SAC aircraft bases would be prime targets for Soviet ICBM attack, NIKE-HERCULES batteries would not be very effective at such installations, but they could be of considerable value in defending hard missile sites and control centers against a follow-on attack by Soviet manned bombers.

We now plan to redeploy 22 HERCULES batteries during fiscal year 1965 and fiscal year 1966, mostly for the protection of our hard missile sites. Multiple launch areas will be prepared for all of the fire units in order to reduce their vulnerability to a defense suppression attack. The initial cost of this redeployment is estimated at about \$50 million in fiscal year 1965. However, the contribution these NIKE-HERCULES batteries can make to the defense of our hard ICBM and control sites is well worth this cost. At the very least, they would force the Soviets to program either a large number of strategic missiles or a combination of missiles and aircraft against each of the hard sites - thus making the cost of destroying any one of them extremely expensive. The specific re-siting plan is still under study, but a decision will be reached soon.

#### C. DEFENSE AGAINST ICBM ATTACK

A defense against ICBM attack continues to be the most difficult problem confronting us in the Continental Air and Missile Defense Forces

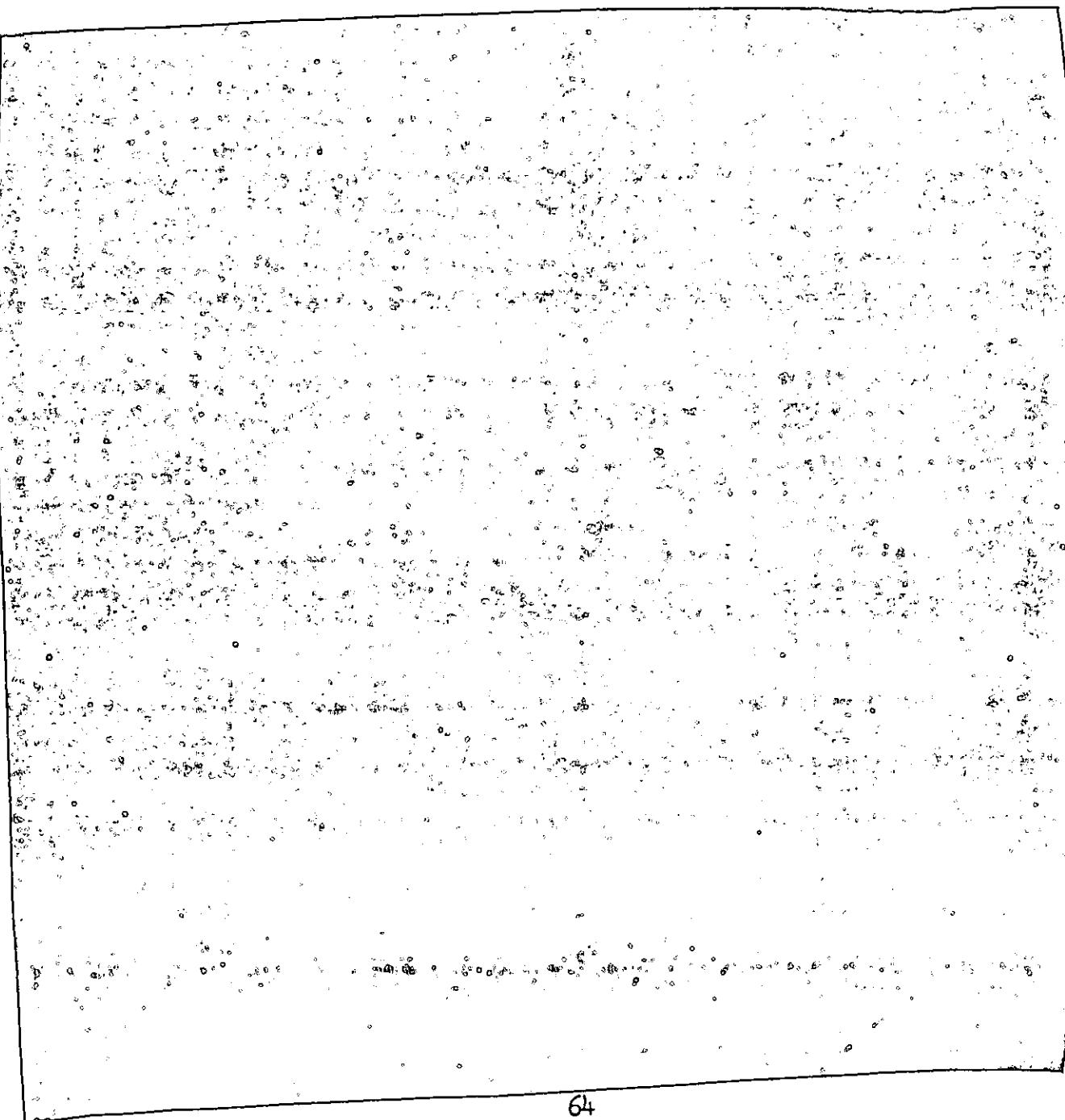
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Program. The problem involves both warning and an active defense against the attacking missiles.

1. Ballistic Missile Early Warning System (BMEWS)

BMEWS is our primary warning system against ballistic missile attack. All three stations of this system - at Thule, Greenland; Clear, Alaska; and Fylingdales, U.K. - are now in operation.



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While it is conceivable that the Soviet Union could "end run" BMEWS by launching an ICBM attack over the Antarctic, it is not a very likely contingency since both the accuracy and the payload of the missile would be significantly reduced.

Against an attack from a more likely direction, i.e., across the Arctic, with or without an attack across the Antarctic, it is reasonable to assume that the BMEWS as now planned would be able to provide adequate warning.

## 2. Missile Defense Alarm System (MIDAS)

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3. Over-The-Horizon Radar

In fiscal year 1963 we started a new program for the development of an over-the-horizon radar [REDACTED] launches. A prototype system is already in operation. Seven million dollars was applied to this project in fiscal year 1963, \$10 million in fiscal year 1964, and \$10 million more is included in the fiscal year 1965 budget. If successful, this development could serve the purpose [REDACTED] namely, a backup to BMEWS. Such a radar [REDACTED] would also be able to detect missiles launched in any direction, for example, over the South Pole. [REDACTED] and could provide earlier information on missile raids than BMEWS. It would also provide greater confidence by confirming BMEWS warning.

4. Bomb Alarm System

The Bomb Alarm System is designed to provide automatic detection of nuclear detonations at selected sites in the NORAD area of responsibility and to relay this information immediately and automatically to the central display centers, both for military and civil defense use. The system has been in operation now for about a year and a half with continuing costs of about \$4 million annually.

Another, more sophisticated system, NUDETS (Nuclear Detonation Detection and Reporting System) has been proposed. NUDETS would be designed to provide timely information to elements of the National Military Command System (NMCS), to other military commands and to civilian agencies on the yield, height of burst and ground zero of nuclear detonations in the United States for purposes of damage assessment and fallout prediction. The first phase of the system - a four-site complex

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centered on the Washington, Baltimore, Norfolk area - should be completed by the end of the current fiscal year. Depending upon the results of tests of this complex during fiscal year 1965 and further technical studies to be conducted under the direction of the Defense Communications Agency, a nationwide system is a future possibility. The cost of these studies in fiscal year 1965 is estimated at \$0.5 million.

##### 5. NIKE-X and NIKE-ZEUS

Last year, for the reasons which I outlined at the time, the Department of Defense initiated a major program for the development of a new anti-missile defense system, NIKE-X, in place of the NIKE-ZEUS then undergoing test and evaluation. At the same time, the NIKE-ZEUS program was limited to the study of re-entry phenomena and defense techniques,

The NIKE-X is designed to provide three improvements over the NIKE-ZEUS system: (a) A high acceleration missile, SPRINT, which would be fast enough to provide time for atmospheric discrimination by allowing most re-entering objects [REDACTED] before the SPRINT has to be fired; (b) A Multi-function Array Radar (MAR) which would have the capability to acquire and track [REDACTED], thus reducing the probability that the system's rate of fire could be limited by saturating the radar; and (c) Components which could be sufficiently hardened to make direct attack on the system unprofitable.

A small proportion (about 10 percent) of the missiles in each battery would be NIKE-ZEUS in order to provide a capability for above atmosphere and extra range interception, where circumstances permit. This capability would complicate the enemy's problem, since he could not depend on his missile being intercepted only after it had re-entered the atmosphere.

The continued testing of the NIKE-ZEUS and preliminary studies of the NIKE-X system's characteristics and effectiveness provide grounds

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for believing that the technical problems of at least a partial defense against a ballistic missile attack may be solved within the next several years. The NIKE-ZEUS test program has met with considerable success. Of [redacted] actual intercepts attempted at Kwajalein Island, [redacted] successful [redacted] unsuccessful. While such tests do not accurately simulate combat conditions, they are sufficiently realistic to establish confidence in the system's major components. Developmental missile firing and component testing have also continued at the White Sands Missile Range and a NIKE-ZEUS tracking radar installed at Ascension Island has been collecting data on ICBM re-entry bodies launched down the Atlantic Missile Range.

Analyses of the NIKE-X system completed to date provide some basis for the belief that the three critical characteristics required of the system, which I described earlier, can eventually be satisfied. However, major problems have yet to be solved before we will have sufficient data upon which to consider a decision to produce and deploy the system. Three projects, already underway, will contribute importantly to this end: (a) A ZEUS discrimination radar was installed at Kwajalein in September 1963 and over the next year should produce a considerable amount of information concerning discrimination techniques against various types of penetration aids; (b) A proto-type Multi-function Array Radar (MAR) will be installed at White Sands Missile Range in June 1964, and several other phased-array radars will also be tested during the next year, thus contributing importantly to our knowledge of this type of radar technology; and (c) Components of the SPRINT missile will be static-tested in 1964; the first full-scale SPRINT test is scheduled for late 1965.

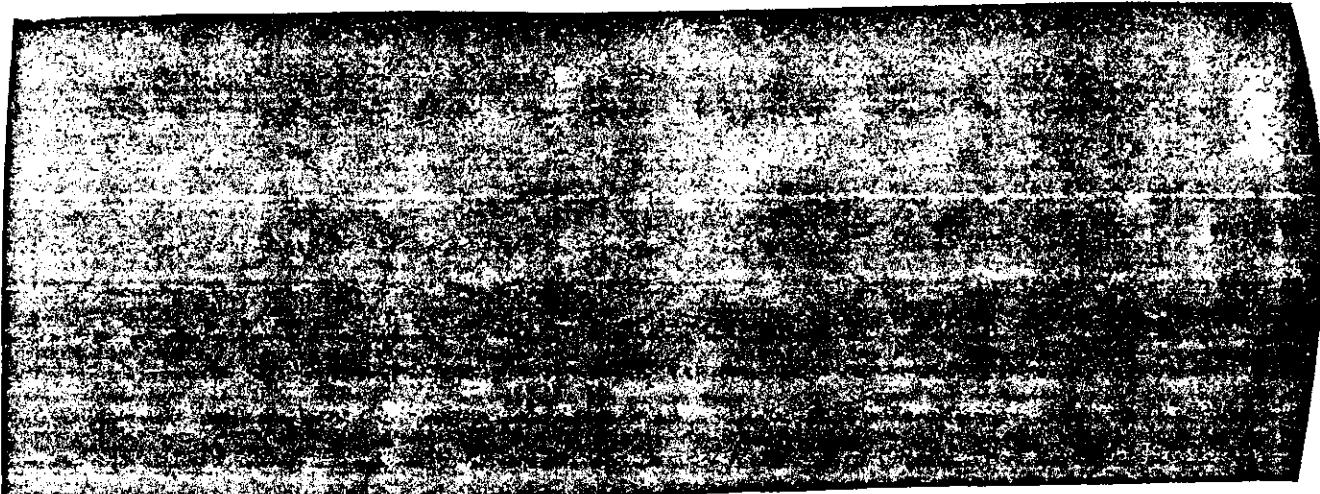
By next year, therefore, we should have considerably more information upon which to base a judgment on the technical feasibility of the NIKE-X system. A large number of detailed technical, strategic and economic problems, however, must still be solved before an effective ballistic missile defense system can be deployed. Components must be developed to withstand very high accelerations and temperatures. Manufacturing techniques must be devised for the production of thousands of efficient, reliable tubes and components. [redacted]

[redacted] While none of these problems is considered insuperable, they could result in delays and increases in costs.

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Far more important: the effectiveness of an active ballistic missile defense system in saving lives depends in large part upon the existence of an adequate civil defense system. Indeed, in the absence of adequate fallout shelters, an active defense might not significantly increase the proportion of the population surviving an "all out" nuclear attack. Offensive missiles could easily be targeted at points outside the defended area and thereby achieve by fallout what otherwise would have to be achieved by blast and heat effects. For this reason, the very austere civil defense program recommended by the President, which I will discuss later, should be given priority over procurement and deployment of any major additions to the active defenses.

Moreover, before we make the huge investment required for the deployment of an anti-ballistic missile defense system, we must carefully consider what additional civil defense measures might be required for the population. The effectiveness of the NIKE-X system against attacks employing decoys would vary with the altitude at which the incoming warheads must be engaged. The lower the altitude, the better the chances of discrimination, but the greater the chance that the weapon might be detonated before it is intercepted. But, the lower the altitude at which the weapon is detonated, the higher the blast and thermal effects on the ground for any given yield. Thus, to the extent that we can protect the population against the blast and heat of a nuclear explosion, we can wait longer before engaging an enemy missile and can thus be surer that we engage the warhead, not a decoy.

Finally, we would have to continue and perhaps improve our defenses against manned bombers since the NIKE-X alone could not defend cities against a bomber attack or cruise missiles.

Accordingly, we propose to continue the NIKE-X as a high priority research and development program without any commitment at this time to

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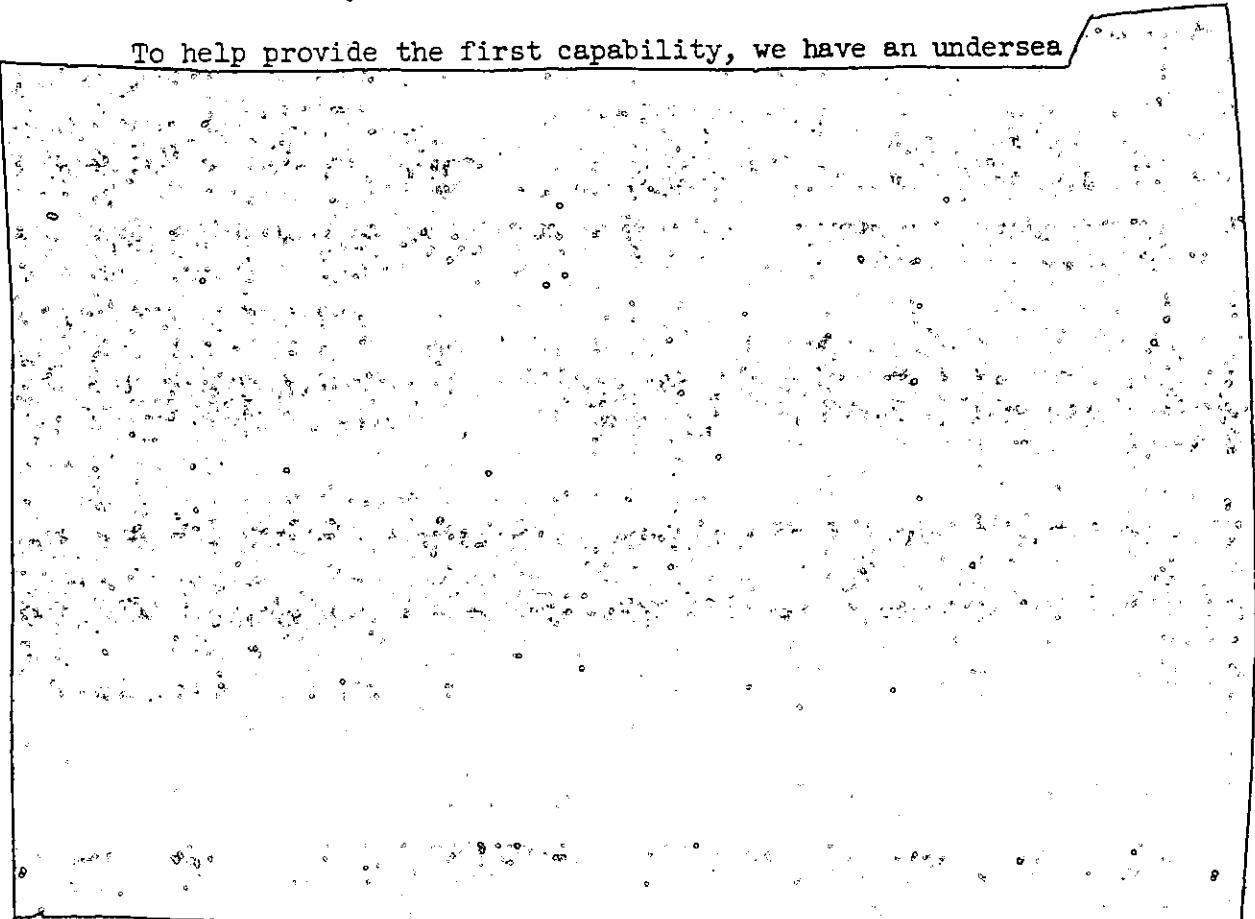
its ultimate production and deployment. A decision to commence procurement in fiscal year 1966, if such a decision is found warranted at that time, would permit the deployment of the system beginning in 1969-70, with complete deployment by 1972-73. The NIKE-ZEUS test program will be completed in fiscal year 1965.

D. DEFENSE AGAINST SUBMARINE-LAUNCHED MISSILES

Second only in importance to defense against ICBM attack is the problem of defense against submarine-launched missiles. The solution to this problem entails three different types of capabilities:

- (1) The detection and tracking of enemy submarines.
- (2) The destruction of these submarines before they have an opportunity to launch their missiles.
- (3) The detection, tracking, and destruction of the missiles once they have been launched.

To help provide the first capability, we have an undersea



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Recognizing the growing seriousness of the missile-launching submarine threat, we are continuing a very ambitious research and development effort in the submarine detection area. This effort, known collectively as TRIDENT, is included in the Research and Development Program.

We are also supporting a large-scale experimental effort in the long range active detection of enemy submarines. This project, known as ARTEMIS, is directed at extending our basic knowledge of sonar techniques, particularly in acoustics, a science which is vital to the long range detection and surveillance problem. The 1965 Research and Development Program will also support continued work on the development of aircraft-monitored sonobuoys, still another approach to the difficult surveillance and tracking problems.

[redacted] the detection systems under development, can only provide information on the presence and location of enemy submarines. Destruction of the submarines, the second capability, must be accomplished by the ships, aircraft, and submarines of the Navy's anti-submarine warfare forces which I will discuss in detail under the heading of General Purpose Forces.

With regard to the third capability, we do not now have any significant defense against missiles once they are launched by enemy submarines. Our principal active defense capability against submarine-

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launched missiles lies in our system for detecting, tracking, and destroying the submarines before they can launch their missiles.

We have, however, been studying and testing the feasibility of modifying certain radars to give them a capability for detecting missiles launched from submarines. These tests were successful and we are now about to modify selected air defense radars on the East, West, and Gulf Coasts to give them some capability against shorter range missiles launched from submarines [REDACTED] thereby providing at least a few minutes of warning. About \$7 million was included in the fiscal year 1964 budget for this purpose, \$15.9 million is included in the 1965 budget, and \$5.5 million will be required in fiscal year 1966, making a total of about \$28 million. The NIKE-X system, if we decide to deploy it, would then provide the primary capability against submarine-launched missiles.

#### E. SPACE SURVEILLANCE

Although attack from enemy satellites is not a very likely threat for the immediate future, it is a possibility and we must develop the necessary techniques and equipment now so that we could quickly provide a defense if the need should ever arise. The first element of such a capability is to be able to detect and track all objects in orbit, which is now being done through the Space Detection and Tracking System (SPADATS) under the control of NORAD. SPADATS is a combination of the Navy's Space Surveillance (SPASUR) system and the Air Force's SPACETRACK. Data from this consolidated system, plus additional information from scientific centers, other military systems such as BMEWS and [REDACTED] [REDACTED] and Alaska, are fed to the surveillance center at NORAD where a catalog of all space objects is maintained.

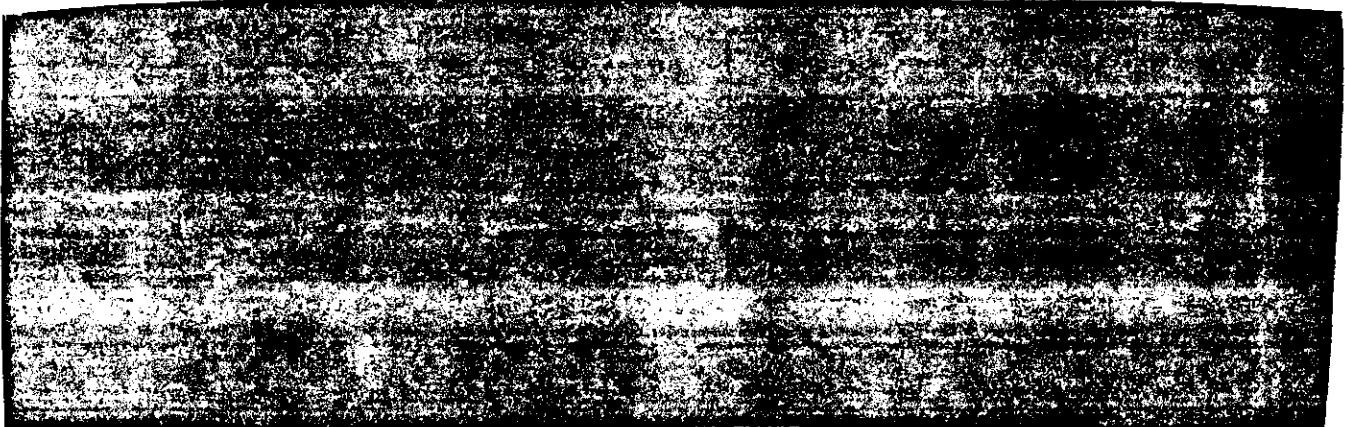
A new large phased-array prototype radar will be installed this spring at Eglin Field, Florida, thus greatly increasing the capability of the system to track and classify large numbers of orbiting objects. For detecting objects beyond effective radar range, an optical search system is being installed at Cloudcroft, New Mexico. [REDACTED]

Further improvements to SPADATS are proposed for fiscal year 1965, including initiation of research and development on high accuracy radar tracking techniques which would improve our ability to identify and intercept satellites.

Work will also be continued on the Satellite Inspector project designed to develop equipment and techniques for inspecting objects in space in order to determine whether they are friendly or hostile. Because of the potential importance of a workable satellite inspection system, we are also providing funds to explore other possible approaches. The

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Advanced Research Projects Agency's (ARPA) budget for the current fiscal year includes funds for the study of the feasibility of developing ground-based techniques for determining satellite characteristics. Much of the technology that would be required for such a capability is closely related to ARPA's Project DEFENDER and the studies will be carried out in conjunction with that project.



F. FINANCIAL SUMMARY

The Continental Air and Missile Defense Forces I have outlined will require Total Obligational Authority of \$1.8 billion in fiscal year 1965. A comparison with prior fiscal years is shown below:

(\$ Billions, Fiscal Years)

	<u>1962</u> <u>Original</u>	<u>1962</u> <u>Final</u>	<u>1963</u> <u>Actual</u>	<u>1964</u> <u>Estimated</u>	<u>1965</u> <u>Proposed</u>
Total Obligational Authority	2.2	2.1	1.9	1.9	1.8

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#### IV. GENERAL PURPOSE FORCES

The General Purpose Forces include most of the Army's combat and combat support units, virtually all Navy units, all Marine Corps units, and the tactical units of the Air Force. These are the forces upon which we rely to perform the entire range of combat operations short of general nuclear war.

##### A. THE REQUIREMENT

Although we have made a great deal of progress during the last two years in exploring and defining the broad requirements for General Purpose Forces, the size and character of these forces are more difficult to determine than that of strategic forces. This is so for several reasons:

1. The wide variety of possible contingencies they must be prepared to meet - ranging from counterinsurgency operations in such places as Vietnam to a large-scale conventional or tactical nuclear war in Europe.
2. The many uncertainties regarding the size, disposition, readiness, and effectiveness of the opposing forces they may have to engage.
3. The close interdependence of our General Purpose Forces with those of our Allies around the world, particularly in the NATO area.
4. The relatively more important role that the reserve components play in the General Purpose Forces.
5. The interaction between the size of the forces and the ability to deploy them rapidly to wherever they may be needed.
6. The sheer number and diversity of the units, capabilities, weapons, equipment, and supplies involved.

Although one of the major objectives of our General Purpose Forces is to keep open as many useful military options as possible, we must recognize that we cannot hope to be fully prepared to meet every conceivable contingency and, for that matter, neither can our opponents. Moreover, the record shows that our ability to predict contingencies is quite limited. Accordingly, we must build into our General Purpose Forces a capability to deal with both the kind of contingencies we judge to be most likely and the kind we judge to be most vital to the security of the United States and the free world.

For example, a large-scale Soviet attack on Western Europe, while not one of the most likely contingencies, would be extremely dangerous to our

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own security, and would compel us to respond immediately with whatever force was needed to halt the onslaught, even with tactical nuclear weapons, if necessary. Thus, we must continue to provide in our General Purpose Forces a capability to participate with our Allies in a large-scale war in Europe, both with and without nuclear weapons.

But the capability to deal with the largest and most dangerous contingency does not necessarily give us the capability to deal effectively with the more likely ones at the lower end of the scale. We learned that lesson in Vietnam. The kinds of forces, equipment, training, and tactics required for counterinsurgency operations, which appear to be the most likely type of contingency we are apt to encounter during the balance of this decade, are quite different from those needed to fight large-scale conventional wars, not to speak of wars involving the use of tactical nuclear weapons. This capability, too, must be provided in our general purpose forces, both for our own use and to assist in training the forces of other free world nations.

Falling between these two extremes is the wide range of contingencies which stem from overt armed aggression by a Communist state against a neighbor. Forces to deal with such contingencies must also be available.

As I informed the Committee last year, we studied a large number of limited war situations and examined the specific ground and air tactical forces we would need to deal with them. While we recognize the limitations of these studies, they were of great assistance to us in assessing the capabilities of our ground and air tactical forces to cope with such situations in various parts of the world, and in some cases in more than one place at the same time.

On the basis of these analyses, we concluded last year that:

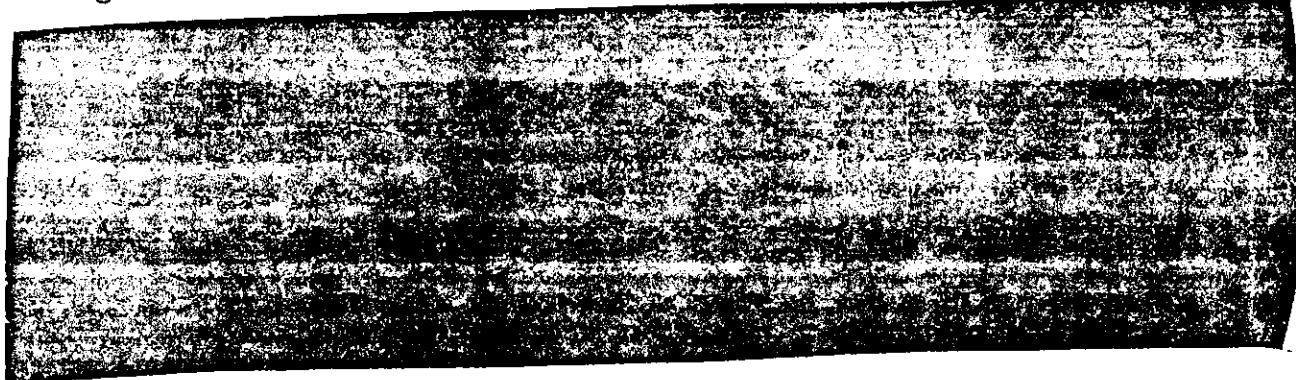
1. Readiness and mobility can greatly reduce requirements for general purpose forces, in the sense that they increase the effectiveness of available forces.
2. Modern equipment, weapons, and munitions in sufficient quantity to support the existing forces in sustained combat are more important at this time than more military units.
3. In many cases, proper support of indigenous forces on the scene can give a greater return to collective defense than additional U.S. forces.
4. The presently programmed force, in general, could by non-nuclear means alone, counter a wide spectrum of Sino-Soviet Bloc aggressions in regions other than Europe.

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5. With regard to Europe, the presently programed U.S. forces, together with the present forces of other NATO countries, would not be able to contain an all-out conventional Soviet attack without invoking the use of nuclear weapons.

Our continuing study of this problem during the last year has not significantly altered these conclusions, with one important exception. An intensive study of the size and character of Communist ground forces has convinced us that our ability to deal with conventional attacks in Europe is greater than had previously been supposed. I have been convinced for some time, as have many members of Congress, that we have been over-estimating the size and capability of the Communist ground forces. These inflated estimates have led, in turn, to an unduly pessimistic view of our prospects in non-nuclear war. Actually, the problems we face in this area are related more to readiness, deployment capability and certain shortages in equipment and stocks than they are to overall manpower levels or defense budgets.

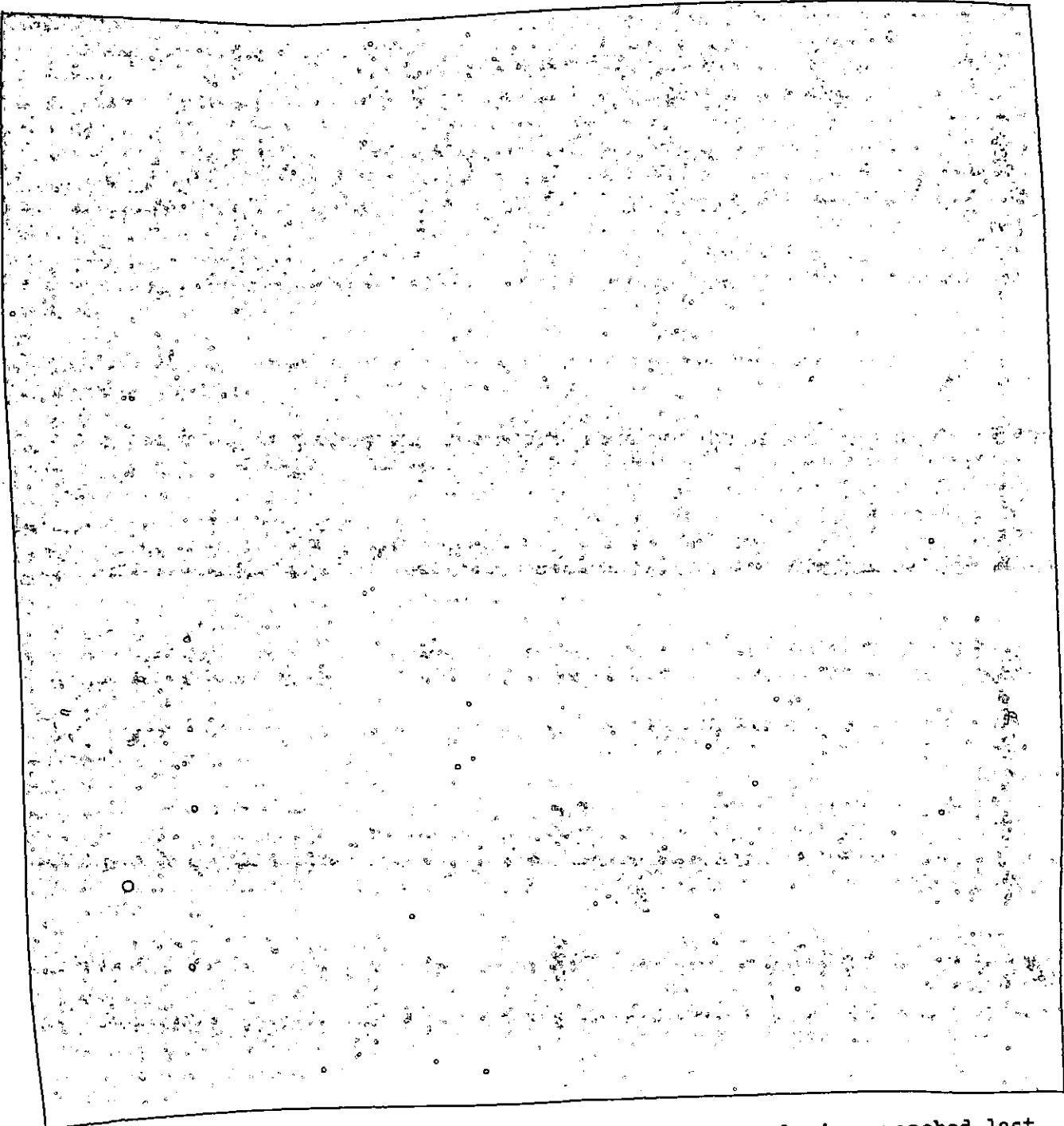


It is clear, therefore, that numbers of divisions, alone, are not a good measure of combat effectiveness. Manning, non-divisional combat support forces and levels of equipping and supply must also be taken into account. These are the factors which give the divisions their "staying power". U.S. mechanized divisions, for example, are backed up by about two and a half times as many non-divisional combat support personnel, e.g., corps artillery, combat engineers, etc. as their Soviet counterparts. The U.S. divisions have far more personnel in maneuvering units, more engineers and signal units, and more light armored personnel carriers, and far more organic aircraft available in support than Soviet divisions.

Because of the wide differences in the manning, equipping, support, etc., of the various national forces, it is extremely difficult to make any direct comparisons between the NATO and Warsaw Pact forces, or even among the national forces of each of the alliances. Moreover, many other important factors including esprit de corps and leadership must be taken into account. Nevertheless, it is clear that U.S. divisions and their combat support forces have about twice as many men as their Soviet counterparts, and they are better equipped.

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Our most recent studies support the general conclusions reached last year, namely, that: (1) The forces envisioned in NATO plans for the end of 1966, fully manned, trained, equipped, and properly positioned, could hold an initial Soviet attack on the Central Front using non-nuclear means alone; (2) Until these requirements are met [redacted] the defense of Europe against an all-out Soviet [redacted]

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attack, even if such an attack were limited to non-nuclear means, would require the use of tactical nuclear weapons on our part.

Although the current force goals are well within the capabilities of NATO, we are still some distance from achieving them. We believe that the present U.S. contribution of five M-Day divisions and three separate regiments, plus [redacted] divisions, is a fair share of the total requirement, considering our responsibilities for furnishing the strategic nuclear forces for NATO and for supporting allies in other parts of the world. Accordingly, we still hold to the position that the balance of the NATO force requirements should be provided by our NATO partners. And this was the view I reiterated to the NATO Council of Ministers last December.

Some progress has been made in this direction. Within the last year our NATO partners have increased their defense budgets by about \$1.3 billion, from \$18.7 billion to \$20 billion. However, it is becoming increasingly clear that the real problem is not so much an overall increase in defense budgets as it is a better balance of effort, particularly in the deployment of available forces and in the provision of combat consumables.

One final point: most of our non-nuclear requirements studies to date have concerned themselves with the military requirements for defending Europe against the Bloc's major capability, a massive attack. I believe it is at least equally important that NATO have strong conventional forces for use in contingencies which may arise over Berlin, or in other contingencies whose course is hard for us now to predict. In either case, our ability to put pressure on the Soviets - a crucial element in crises of this sort - may depend on our ability to make limited military moves without using nuclear weapons. In this connection, what matters most is not the size of the available forces but their readiness, their disposition and their mobility. For this reason we are making every effort to improve the capability of our forces for rapid transport and deployment. I shall outline these efforts in detail in connection with my discussion of our airlift and sealift forces.

As I informed the Committee last year, we are in considerably better shape with regard to land-based tactical airpower in the NATO area than we are with regard to ground forces. [redacted]

These totals do not reflect the definite qualitative edge on the side of NATO. For example, the bulk of Allied tactical aircraft can carry twice the payload farther than their Bloc counterparts. In fact, most Bloc aircraft could not reach many important NATO targets from available bases,

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especially at the low altitudes at which our air defenses would force them to fly.

The NATO tactical air forces, however, have several serious weaknesses which, if not corrected, would tend to degrade NATO's other advantages. NATO aircraft are presently concentrated on too few airfields and in unprotected parking areas where they are highly vulnerable to attack. Also, non-U.S. NATO forces are still short of combat supplies and properly trained personnel. We have undertaken a number of measures to overcome the deficiencies in our own forces, which I will discuss later in context with the Air Force general purpose forces. Air superiority in the NATO area is essential to our defensive strategy, since we depend upon that superiority to disrupt enemy supply lines and prevent reinforcement of Bloc ground forces in Europe.

In our judgment, resources allocated to the Navy general purpose forces are adequate to meet limited war requirements in Europe and elsewhere in the world. The principal problem here is to ensure that the composition of the Fleet is such as to provide us with a capability to deal with important contingencies. I will discuss this particular problem when I talk about the shipbuilding program.

In summary, our requirements studies indicate that, except in the case of a massive attack by the Soviet Union or Communist China, we, together with our allies, have sufficient active forces for the initial stages of a conflict, without immediately resorting to nuclear weapons. It would, however, be necessary to mobilize reserve component units rapidly at the start of a conflict in order to provide the additional forces needed to sustain combat and to reconstitute the strategic reserve. And, in all cases, it is clear that ultimate allied success would be heavily dependent upon achieving early air superiority and upon having adequate air and sea lift.

Our capability for dealing with Communist aggression will be importantly influenced by congressional action on the Military Assistance Program. Our general purpose forces, to a large extent, are designed to support our Allies around the world. Thus, the size and quality of the forces of our Allies have an important bearing on our own requirements for general purpose forces. Indeed, in the NATO area and the Far East, the forces of our Allies clearly outnumber our own, although they lack in many respects our readiness and combat power.

Most of our European NATO Allies are now in a much better position to support their military forces, but our Allies in the Middle and Far East, and particularly those close to and immediately threatened by Communist power, still need substantial amounts of both military and economic

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assistance. These countries have the manpower, but they do not have the needed weapons and materiel; and, in some cases, they cannot even meet their military payrolls from their own resources. For these countries, military assistance -- and in selected cases, economic assistance as well -- is absolutely essential if they are to continue to play their proper role in the collective defense of the free world.

There is no question in my mind that where the nations involved have the will to defend their independence we can help them best by providing the required materiel, training and budgetary support for their military forces, instead of increasing our own general purpose forces. While we must always be prepared to meet our military obligations to our allies, it is in the interest of the entire free world for nations threatened by Communist attack or subversion to defend themselves insofar as possible without direct intervention by U.S. military forces. Thus, from every point of view, it is in our own national interest to help provide these nations with both the military and the economic means to defend themselves. Indeed, we are still convinced that dollars spent for military assistance can often make a much greater contribution to the collective defense of the free world and thus to our own security than an equal number of dollars spent for our own forces.

The requirement for active duty general purpose forces is also influenced by the size and character of our reserve forces. To the extent that our reserve units can be brought to bear in a timely manner, the requirement for active forces is reduced. But to be fully effective, certain portions of our reserve forces must be maintained at a high level of readiness, since as we have seen, a quick response to actual or threatened Communist aggression can do much to forestall the need for a much greater military effort later when the situation has already deteriorated. Thus, there is a great premium on highly ready reserve forces which can augment quickly our active forces.

Because the time element is so important in limited war situations, we must also take into account other means for reducing reaction time in our evaluation of the general purpose forces requirements:

- (1) The deployment, in advance of aggression, of suitable U.S. forces to potential trouble areas;
- (2) Measures to maintain the readiness of the forces held in strategic reserve in the U.S. for quick deployment overseas;
- (3) Adequate airlift and sealift to move additional forces to the place of need; and
- (4) The prepositioning of equipment and supplies in potential trouble areas overseas.

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In some of the situations we have studied, we have found that our ability to move forces promptly and support them in combat overseas is the limiting factor and not the number of divisions available.

All of these considerations -- the broad range of military capabilities required, the coordination of our efforts with those of our allies, the close relationship between our own military program and the assistance we give our allies, the abilities of our reserve components, and the various alternatives we have for increasing our readiness -- must be taken into account in determining the requirements for general purpose forces.

#### B. ARMY GENERAL PURPOSE FORCES

##### 1. Active Forces

The United States Army, during the last three years, has been increased in size but even more in combat effectiveness. The active duty strength was raised from about 858,000 at the end of fiscal year 1961 to about 972,000 planned for the end of the current fiscal year. The number of combat-ready divisions was increased from 11 to 16 by bringing three training divisions up to full combat strength and by creating two new divisions. In addition, a provisional air assault division was established to test new concepts in air mobility. By June of this year all of the 16 regular Army divisions will have been reorganized on the ROAD concept, thus greatly increasing their non-nuclear firepower and tactical mobility, and significantly increasing their organizational flexibility.

Major increases were also made in non-divisional support units -- artillery, surface-to-surface missiles, and air defense battalions. All of the liquid fuel REDSTONE and CORPORAL battalions will be phased out by this summer and replaced with solid fuel SERGEANT and PERSHING battalions. The number of Special Forces Groups including those currently employed in counterinsurgency operations has been more than doubled and their overall personnel strength quadrupled. In addition, Army procurement has been substantially increased.

The Army General Purpose Forces proposed for the fiscal year 1965-69 period are shown on Table 4. The number of combat divisions remains at 16. One mechanized division is now being converted to an armored division, and the provisional air assault division will be continued to permit completion of the test program now underway. The 974,000 end strength planned for fiscal year 1965 includes 15,000 men for this division and related smaller units. The division was formed in February 1963 with an infantry battalion size force and a reduced air transport brigade. The battalion size force was expanded to a brigade last fall. The reduced strength air transport brigade also has been increased in strength. Full-scale division tests are scheduled for late in fiscal year 1965. Joint

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exercises with the Air Force will also be conducted under the auspices of the Strike Command. We will then be in a position to decide on the future implementation of the air mobility concepts recommended by the Howze Board two years ago.

There are a number of other minor changes in the non-divisional forces as compared with last year. We had planned, as part of the ROAD reorganization in Europe, to use some of the resources freed by the phase-out of the infantry battle groups to create a new airborne brigade. This is no longer necessary, inasmuch as the contingency for which this brigade was required can be covered by the rapid deployment of forces now in the U.S. Moreover, we intend to retain the airborne capability now provided within one of our divisions in Europe. This capability would have been eliminated had the additional brigade been formed.

Another change from last year is the addition of the seventh Special Forces Group in fiscal year 1964. The total strength of these units will be increased to [redacted] at the end of fiscal year 1961.

In the surface-to-surface missile category, the only change from last year is the elimination of the six battalions of LACROSSE. It was decided that in view of the rapid introduction of other weapons such as the improved HONEST JOHN, the 175mm gun, the new 8" howitzers, and the potential savings in manpower and other operating costs that might be applied to higher priority programs, these units should be phased out earlier than originally planned.

A number of important changes have been made in the Army's air defense program. As I mentioned earlier in connection with the Continental Air and Missile Defense Program, one battalion of HERCULES and two battalions of HAWK were transferred from the Army General Purpose Forces to the Continental Defense Forces for the defense of southern Florida. The number of HERCULES battalions, however, will increase by two as previously planned.

Last year we had planned to introduce the MAULER air defense missile into the force beginning in fiscal year 1966, and provide one battalion per Army division by end fiscal year 1968. However, the MAULER development program has slipped badly as a result of unforeseen technical problems and we have decided to leave it in development status for another year. Meanwhile, we are exploring alternative systems to meet the air defense requirement in the forward battle area. I will discuss this effort in greater detail in connection with the Research and Development Program.

## 2. Army Reserve Components

Two years ago we initiated a major realignment of the Army's reserve components to enhance their ability to augment the active Army during periods of grave international tension or during limited wars. This realignment was

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completed last summer and, in fact, the units completed their summer training under their new designations. All of the Army Reserve and Guard divisions are now organized under the new ROAD concept.

But, as we anticipated last year, the Army's reserve components have suffered a heavy turnover of personnel and their paid drill training strength as of December 31, 1963 (about 618,100), is no greater than it was at the end of fiscal year 1962, when 78,200 reservists called up in 1961 were still on active duty. However, there is one significant difference - the condition of the reserve component units is superior to what it was two years ago, because: (a) All units must now maintain at least 90 percent MOS qualified personnel; (b) The reserve components must apply the same high recruiting standards used for enlistment in the active Army; (c) No units are permitted to exceed their authorized strength; and (d) Personnel on paid drill training status are required to meet specific standards of attendance and performance.

In accordance with the desires of the Congress, we programmed for the Army's reserve components a paid drill strength of 700,000 for end fiscal year 1964, but we budgeted for only about 665,000, the level which we thought they could actually achieve by the end of that year. We now estimate that they will reach a level of only about 640,000 by the end of the current fiscal year. For end fiscal year 1965, therefore, we again propose to program a total of 700,000, but budget for a total of 680,000 - 395,000 for the Army National Guard and 285,000 for the Army Reserves - the numbers we believe can actually be attained.

Although the Army's reserve components have not reached the paid drill training strength estimated last year, the realignment of the forces has gone well. They have now a larger proportion of their drill pay strength in the higher priority categories - the on-site air defense units, the units to reinforce the active Army, the brigades, the training and base units, and the six high priority divisions and their support, as shown on Table 5. A much smaller proportion of the total strength is now in the lower priority divisions. In terms of readiness, the reserve components have made less progress, but there has still been a distinct improvement. Faster progress towards the achievement of the readiness goals will be one of our major objectives in the coming fiscal year.

### 3. Army Procurement

One of our major General Purpose Forces objectives in the last three years has been to build stocks of weapons, equipment, ammunition, and supplies to balanced levels which would enable the Army to engage in combat

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for sustained periods of time. Until the Contingency War Plans can be fully translated into logistical requirements, we have decided to provide initial equipment for a 22-division force (16 active and 6 reserve component divisions) plus sufficient combat consumables (attrition of equipment, replacement spares, ammunition, etc.) to maintain 16 divisions and their supporting forces in combat for the entire period between D-Day and the time when our production lines would be able to catch up with the rate of combat consumption (D to P). This objective will be substantially met by the fiscal year 1964 procurement program. In the three fiscal years 1962-64 we will have applied about \$8.1 billion for Army procurement compared with about \$5.0 billion in the three preceding fiscal years.

In fiscal year 1965 we propose to eliminate the remaining major deficiencies and, wherever feasible, to adjust production schedules to minimum sustaining rates in order to keep the production lines going. We have also continued our intensive review of combat requirements and we have found a number of places where reductions can be made in estimated consumption without any adverse impact on combat effectiveness. For example, we found that the schedule for the deployment of forces which the Army used to compute requirements was far too optimistic. As a result, total combat consumption needs were inflated. The more realistic rates of deployment now being used have permitted some reduction in requirements for both fiscal years 1964 and 1965. Other changes in the fiscal year 1964 procurement program presented to you a year ago have been caused by delays in completion of the R&D phase of certain items, by the availability of more recent consumption data and by changes to our request made by the Congress. Army proposals for the procurement of items for replacement or modernization have been scrutinized with particular care in order to ensure that the resultant gain in combat effectiveness would be fully worth the cost. As a result of these adjustments the fiscal year 1964 procurement program now totals about \$2.9 billion and Total Obligational Authority required for fiscal year 1965 is about \$2.1 billion.

Because of the large number and variety of individual "line items" in the Army's procurement list I will again limit myself to a discussion of the broad categories shown on Table 6, mentioning only the most important items within each category.

a. Aircraft

The fiscal year 1965 budget provides \$443.6 million for procurement of 1,182 aircraft (and spares and repair parts), about 13 percent less than fiscal year 1964 but about 30 percent more than fiscal year 1963.

Again the largest single item in this category is the purchase of 900 more UH-1 B/D (IROQUOIS) helicopters. The IROQUOIS is replacing older helicopters and fixed-wing aircraft in the general utility role (e.g.,

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transporting troops, cargo and casualties). The fiscal year 1965 purchase will bring the Army's inventory to 2,350 compared with an inventory objective of 3,200 aircraft.

The fiscal year 1965 procurement of 72 CH-47B CHINOOK medium transport helicopters will bring the total inventory of this aircraft, together with its predecessor, the MOJAVE, to 68 percent of the objective of 425 aircraft.

Three manufacturers are currently building light observation helicopter (LOH) test vehicles for the Army to be delivered this year. After comparative tests are conducted one design will be selected. We then propose to procure 88 helicopters of the winning design and \$19.9 million is included for this purpose in the fiscal year 1965 budget. This new observation helicopter will be used to modernize the inventory which is made up primarily of OH-13/23's.

We also propose to procure 55 fixed-wing and 67 rotary-wing trainer aircraft in fiscal year 1965, at a cost of \$8 million.

After reviewing the Army's requirements for fixed-wing aircraft it was determined that there was no need for further procurement of the CARIBOU after fiscal year 1963, and MOHAWK, after fiscal year 1964.

b. Missiles

Army procurement of missiles will decrease by \$164.9 million, from \$447.5 million in fiscal year 1964 to \$282.6 million in fiscal year 1965.

No additional HAWK or HERCULES surface-to-air missiles will be procured in fiscal year 1965, the entire requirement for these weapons having been bought in previous years. However, we are requesting about \$10 million for HAWK ground support equipment and related engineering services and about \$2 million has been included for HERCULES general support equipment and related engineering services. Last year we requested, but Congress did not approve funds for the initial procurement of MAULER, an air defense weapon designed for use in the forward battle area. We are now undertaking a complete reappraisal of MAULER. Pending the results of that study, we are not proposing any procurement for that missile.

[REDACTED] During fiscal year 1965 we will be sharing the PERSHING missile production with the Federal Republic of Germany. Inasmuch as we are so close to our inventory objective, this joint program enables us to stretch out procurement of our remaining PERSHING needs, thereby assuring a going production line through [REDACTED]

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Therefore, we propose to increase the number of launchers, thereby significantly increasing the quick reaction capability of the PERSHING force.

We have decided to initiate procurement of 139 of the REDEYE man-carried missiles in fiscal year 1964 using the \$7.9 million appropriated for this purpose by the Congress in fiscal year 1963. In fiscal year 1965 we propose procurement of an [REDACTED] missiles and associated ground equipment at a cost of [REDACTED]. While we noted development problems with this missile last year, recent tests indicate that sufficient improvement has been accomplished to warrant starting procurement and leaving the decision on total inventory objectives for later.

Last year, I indicated that adequate numbers of HONEST JOHN rockets would be available to meet the inventory objective, thereby implying that the 1964 procurement would be the last. During the past year, as a result of an Army study of fire support requirements in Europe, we increased the number of HONEST JOHN's provided to the Seventh Army, and we have therefore planned a further final procurement [REDACTED] rockets in 1965. These missiles, together with a number of other HONEST JOHN's being released to the Army by the Marine Corps should fully satisfy the inventory requirements.

The Army's budget also includes a request for funds to initiate procurement of two new missile weapon systems. The first, SHILLELAGH, is a combination gun/launcher anti-tank weapon system using either a [REDACTED] projectile or a missile, and will be used on the General Sheridan armored reconnaissance/assault vehicle.

The second new missile, LANCE, is an economical, lightweight weapon for division support. It is intended to replace the HONEST JOHN and possibly the LITTLE JOHN. No decision has yet been made to deploy it, but in order to shorten the procurement leadtime, we are requesting \$4.3 million for the first 8 missiles and \$6.7 million for necessary initial preproduction engineering.

About \$24 million is included in the budget for missile spares.

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c. Weapons and Combat Vehicles

The \$236.8 million fiscal year 1965 request for weapons and combat vehicles is \$159.4 million less than the \$396.2 million budgeted in fiscal year 1964.

We have decided to discontinue all rifle procurement for the Army in fiscal years 1964-65 except for the 85,000 AR-15's (now designated M-16), the 5.56mm rifle now included in the fiscal year 1964 program. The Army's current inventory objective is about 1.8 million rifles. On hand or due from the M-14 program are 1.1 million rifles; 85,000 M-16's have been ordered; and there are still about 1.1 million M-1 rifles available in inventory. In view of the upcoming field evaluation of the M-16, the expected completion of service tests of the Special Purpose Individual Weapon (SPIW) in fiscal year 1965, and our relatively good overall rifle inventory position, I believe we can safely terminate M-14 procurement.

With respect to the M-60 machine gun, another member of the 7.62mm family of small arms, we plan to stretch out the fiscal year 1964 production quantity through fiscal year 1965 in order to maintain an active production base for this weapon. Sufficient stocks will be available to meet initial equipment objectives for the entire 22-division force.

Technical difficulties have caused some slippage in the production program for the M-73 7.62mm machine gun. We plan to reduce the fiscal year 1964 procurement to 2,400 (compared with 3,175 previously planned) and spread this quantity over fiscal years 1964 and 1965. This amount will be adequate to equip all related vehicles and precludes the necessity for any fiscal year 1965 financing.

[REDACTED]

An additional 193 M-578 Light Recovery Vehicles will be purchased in fiscal year 1965 for about \$16 million. This will bring stocks to about 85 percent of the inventory objective.

We are also proposing about \$14 million for the initial procurement of long leadtime items for the new armored reconnaissance airborne assault vehicle, popularly called General Sheridan which is designed for reconnaissance operations in the field army. These vehicles equipped with the new SHILLELAGH weapon system, mentioned earlier, will replace the M-41 light tank and the M-56 self-propelled 90mm gun.

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The fiscal year 1964 program for the M-113 armored personnel carriers originally provided for [REDACTED]. This vehicle shares a common chassis with the T-257, self-propelled mortar carrier and the M-577 command post vehicle. In order to sustain the production base for a longer period of time, we now plan to reduce the 1964 procurement of M-113's to [REDACTED] and adjust the fiscal year 1965 program for the three types of carriers to the minimum sustaining rate of [REDACTED]. Thus for 1965 we propose procurement of 175 command post vehicles, 175 81mm mortar carriers and 850 M-113 personnel carriers at a total cost of about \$37 million which will essentially complete all of the initial equipment requirements for the M-113 and the M-577 vehicles.

For M-60 tanks we propose a procurement of [REDACTED]. Together with the programs for combat engineer vehicles and the armored vehicle launched bridge, both of which use the M-60 chassis, this procurement will enable us to keep a production line operating at a minimum sustaining rate [REDACTED] tanks or tank chassis through the fiscal year 1965 procurement.

d. Tactical and Support Vehicles

About \$250 million is provided in the fiscal year 1965 proposed program for the procurement of almost 58,000 trucks, trailers and other non-combat vehicles, about 12,000 less than the number requested in fiscal year 1964.

In terms of cost, the more important items in this category are some 25,000 1/4, 3/4, 2-1/2, and 5-ton trucks for which about \$156 million has been requested. The proposed 1965 procurement would bring stocks of these items to an average of about 87 percent of the inventory objective. However, it should be noted that the present inventory includes a number of trucks which are well beyond the expected useful age of 6-10 years.

e. Communications and Electronics

We are requesting \$259.1 million for the procurement of communications and electronics equipment in fiscal year 1965, about \$176 million less than fiscal year 1964, reflecting to a large extent the substantial correction of our most serious shortages. The Army Strategic Communications System, STARCOM, does show a substantial increase, however - \$73.0 million compared with \$63.4 million in fiscal year 1964. This increase is needed to raise the effectiveness of these world-wide strategic communications links.

About \$38 million is requested for an additional 10,000 AN/VRC 12 vehicular radios. This will bring us to about 53 percent of our present goal. (The inventory objective for this item has been increased during the last year.) Also included in our proposed fiscal year 1965 program is

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about \$27 million for the purchase of communications security and intelligence communications equipment, for functions which are included in the General Support Program.

As shown on Table 6 for 1964, \$81.2 million (to be derived by reprogramming) is provided for the procurement of Automatic Data Processing equipment. Where a particular piece of equipment will continue to be used and can be amortized in six years or less, we believe it should be bought outright rather than leased. Accordingly, I instructed the Services to draw up shopping lists of all equipment meeting this standard. In the case of the Army the procurement of \$81.2 million of equipment in fiscal year 1964 will reduce rental costs by \$7.1 million in that year and \$20.2 million per year thereafter.

f. Ammunition

The 1965 request of \$408 million is about \$35 million less than the amount requested in 1964, again reflecting the effect of past procurements in filling the worst of the shortages in ammunition inventory requirements.

The largest single item, \$72.9 million, is for the procurement of [REDACTED] [REDACTED] We also propose continued procurements of several varieties of 175mm and 8" projectiles. Another large item is the purchase of 762 million rounds of the 7.62mm NATO cartridge for about \$55 million. This is 64 million more rounds than purchased in fiscal year 1964. The inventory objective for this cartridge is about 993 million rounds.

g. Other Support Equipment

We are requesting \$129 million for other support equipment, about half our request for 1964, reflecting the elimination of shortages through past procurements. These funds will be used for such items as electric field generators, road graders, amphibious lighters (such as the LARC), bridge components, shop equipment, forklift trucks, etc.

h. Production Base Program

The \$71.9 million requested for production base support is \$34 million less than that requested for fiscal year 1964. Again, this decrease reflects the lessening need for the expansion of facilities as stocks of many items begin to approach their objectives.

C. NAVY GENERAL PURPOSE FORCES

Since I appeared before this Committee last year, we have made considerable progress in analyzing the need for naval forces. Each category of force was examined separately - the attack carriers and their aircraft,

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the ASW surveillance ships and aircraft, mine warfare, amphibious assault, etc. As a result of these analyses, we now have a better idea of the forces required to carry out these functions. Requirements studies scheduled for the coming year will include some new analyses of such problems as the tactical obsolescence of existing ships and nuclear propulsion for surface warships.

With regard to fleet obsolescence, there has been a tendency to focus attention on the wrong set of facts. What we should be concerned with here is not the chronological age of a particular ship but whether it is able to perform its mission in the face of the expected threat, that is, whether it is "tactically obsolescent". This question must be approached on a class-by-class, ship-by-ship basis. I believe that we are now all in agreement in the Pentagon that obsolescence based on age alone is not a useful concept, and that we should convert or replace ships when so doing would permit us to obtain more overall effectiveness out of the defense dollar than we would get by continuing to operate the old ships. It is not necessarily chronological age per se that makes a ship obsolete, provided it is properly maintained. For example, it now appears that an "Essex" class CVS will be good for at least 30 years of effective service, possibly more. Some World War II ships are not large enough or fast enough to meet today's requirements. These we are replacing with new, more effective ships. Other World War II ships are still adequate for their missions and these do not need to be replaced now.

The key to the problem of nuclear power for surface ships still appears to be the availability of a more efficient power plant. The issue here is both the cost of the nuclear power plants, and their size and weight, which, in turn, set a lower limit on the size of the ships in which they can be installed. The true potential for the application of nuclear power to surface ships, is, in my judgment, not the few new aircraft carriers that we may build over the next decade, but the large number of other major ships that we will need. That is why I place so much emphasis on continued research and development on nuclear reactors for surface ships. The successful development of more efficient, lightweight reactors might well lead to a truly nuclear-powered Navy. The cost/effectiveness of a nuclear-powered fleet is another problem we will be exploring in great depth during the next twelve months.

Meanwhile, we are tentatively programing, for the fiscal year 1965-69 period, the construction [REDACTED]

For end fiscal year 1965 we plan a General Purpose Forces fleet of 840 ships, 3 more than we expect to have at the end of the current fiscal year and 15 more than we had programed for that date last year. For the fiscal year 1968-69 period, we have programed a level [REDACTED], 50 more than we planned last year. This increase is one of the results of our more

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comprehensive analyses of naval requirements and will be discussed in greater detail in connection with each of the various force categories.

1. Attack Carrier Forces

a. Ships

As shown on Table 7, we plan to maintain 15 attack carriers throughout the program period. We now have one nuclear-powered carrier, the ENTERPRISE; six "Forrestal" class, three "Midway" class, and five "Essex" class carriers. One "Essex" class ship will be replaced by a "Forrestal" class in fiscal year 1965 and another in fiscal year 1969, at which time the force will consist of the ENTERPRISE, eight "Forrestal", three "Midway", and three "Essex" class carriers.

We plan to reduce the number of attack carriers to 14 in fiscal year 1970 and to 13 in fiscal year 1972. Therefore, in the fiscal year 1965-69 program the new investment in aircraft and ships is limited to that which would be required by a 13 CVA force.

This judgment is supported by four major considerations:

- (1) The "Forrestal" class carriers are much more effective than the "Essex" class they are replacing. A "Forrestal" class costs between one-third to one-half again as much as an "Essex", but this differential does seem justified. For example, the area available for spotting aircraft is about 50 percent greater; overhead clearances in the hangar bays are about 40 percent greater, permitting larger aircraft to be stowed; aviation fuel and ordnance storage spaces are greater, allowing longer periods of sustained combat; etc.
- (2) The capabilities of carrier-based aircraft are improving steadily. In the attack aircraft field, we are replacing the early A-4's with the A-4E's, and an entirely new all-weather, large payload aircraft, the A-6, is being introduced. In the fighter field, we are replacing the F-8 low supersonic, fair weather day fighter armed with SIDEWINDER missiles, with the Mach 2.2 all-weather F-4, armed with SPARROW air-to-air missiles. Further gains in combat capability will be realized when still more effective aircraft, such as the new VAL (which I will discuss presently, and the F-111 (TFX), become available later in the planning period.
- (3) By fiscal year 1966, when we will have almost 1,750 strategic missiles in place, the CVA forces will be relieved of their strategic retaliatory mission, thus releasing additional

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capabilities for the carriers' limited war mission. Assignment of carriers to strategic missions restricts their flexibility in terms of areas in which they can operate and the kinds of operations they can conduct. If pilots and aircraft must be held on nuclear alert, limited war capabilities are reduced.

(4) The increasing range of land-based tactical aircraft has reduced our requirement for forward based airpower. A deployment of [redacted]

[redacted] The TFX will be able to deploy to Europe without any inflight refueling.

Although a precise analysis of the optimum number of carriers is difficult to make, it seems clear on the basis of these factors that some reduction in the number of attack carriers will be possible by the end of this decade.

We have deleted from the shipbuilding program the previously planned fiscal year 1965 carrier but have tentatively programmed a new carrier in fiscal year 1967. This carrier would replace the last of the "Essex" class, leaving in 1972 a force of ten nuclear-powered and "Forrestal" class and three "Midway" class carriers.

b. Carrier Aircraft

The air complement of the attack carrier force consists of 15 attack carrier groups and two replacement pilot training groups. By the end of the current fiscal year these units will total about 1,775 aircraft, as shown in the middle of the second page of Table 7. The number of aircraft associated with the carrier air groups will continue to decline during the program period, primarily because of a reduction in the number of aircraft in the replacement training groups, reflecting an anticipated decline in the training loads as the wide variety of older aircraft are retired from the active forces.

There will also be some adjustments in the aircraft complement aboard the carriers. In the fighter category, all the F-3B's, and early F-8's will be phased out by end fiscal year 1965 and the F-8D's in fiscal year 1967, leaving only F-8E's and F-4's. The F-8E's will be retained for use aboard the "Essex" class carriers which have only a marginal capability for the safe operation of the larger and faster F-4B's. The decline in the total number of fighters in fiscal year 1965 to 360 reflects a planned reduction in the number of aircraft per squadron from 14 to 12 in order to provide more space for light attack aircraft. Since many types of Navy aircraft are procured to satisfy a number of different missions, I will discuss the aircraft procurement program in more detail later in this statement.

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First deliveries of the F-111B (TFX) to the carriers are expected in fiscal year 1969.

Similarly, the F-111B should offer a substantial increase in effectiveness over the F-4B and may replace them on less than a one-to-one basis.

In the attack category, the number of light attack aircraft will be increased while the number of heavy attack aircraft will be sharply reduced. As I noted earlier, the carriers will be relieved of their [REDACTED] mission in fiscal year 1966, thus sharply reducing the requirement for heavy attack aircraft. All but a few of the A-5's will be converted to RA-5C's by fiscal year 1966. Thirty-nine A-3B's will be retained to provide a long-range nuclear capability for the "Essex" class and "Midway" class carriers.

The number of attack aircraft aboard the carriers will increase from [REDACTED] by the end of fiscal year 1969. The number of light attack aircraft per squadron will be increased from [REDACTED] in fiscal year 1965 and the number of squadrons per FORRESTAL carrier will be increased from [REDACTED]. (We had previously programed 3 light attack squadrons for the slightly larger ENTERPRISE). Two types of attack aircraft are now being procured, the A-4E and the A-6A. Both are subsonic, the latter being especially designed for low-level bombing at night and in bad weather.

Last year we had planned to continue procurement of A-4E light attack aircraft into fiscal year 1966. However, last May the Navy completed an extensive study of the entire sea-based air strike system which indicated convincingly that the A-4 series would not fully meet the Navy's needs. As originally conceived in the late 1940's, the A-4 was designed to deliver, at the least possible cost, a single [REDACTED] nuclear weapon. But, as I indicated earlier, the carrier's role in a nuclear war has been decreasing while its non-nuclear role has been increasing. The A-4 has been modified over the years to improve its non-nuclear capabilities; yet the fact remains that its original design characteristics significantly limit its capabilities in that role. Thus, the Navy study recommended the immediate development of a new light attack aircraft to be built around an existing Navy airframe using a modified version of the TF-30 engine now being developed for the F-111 (TFX).

The performance requirements established for this new aircraft, called the VAL, will provide an airplane slightly larger than the A-4E but with approximately twice the bomb load or combat radius and an even greater increase in loiter time on station.

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Once we were satisfied that the requirement for a new light attack aircraft was fully justified, it was simply sound management to plan to proceed with its development as soon as possible and to terminate the procurement of the older aircraft. Accordingly, we propose to begin development of VAL this fiscal year, by reprogramming \$16 million within the Navy's RDT&E account, by using \$3.4 million in fiscal year 1963 unobligated funds, plus the transfer of \$15 million from the DoD Emergency Fund. To delay the development of the VAL to permit its inclusion in the fiscal year 1965 budget would mean up to an additional year before it would be available to the fleet. Moreover, by last September, the Bureau of Naval Weapons had already received firm fixed price proposals from four contractors anxious and capable of beginning work on the VAL. If we were to wait until fiscal year 1965 funds became available, it would be necessary to obtain new (and probably higher) cost proposals from the various contractors inasmuch as their earlier fixed price bids would have already expired.

We estimate that the first VAL could be deployed with the fleet in fiscal year 1967. Although additional A-4E's procured in fiscal year 1965 could be delivered to the fleet somewhat earlier, they would soon become surplus to our needs when the new VAL gets into full production. Accordingly, we are accepting a small deficit in our attack inventory in the fiscal year 1965-67 period, instead of buying more A-4E's. The full light attack aircraft complement would be available by fiscal year 1968.

As shown on Table 7, the number of reconnaissance aircraft will continue to increase over the next few years, reflecting the growing importance of this function. As I informed the Committee last year, we intend to meet future requirements of this mission by procuring RA-5C's and by modifying most A-5A's to an RA-5C configuration. We had planned last year to buy another eight RA-5C's but that program has been marked by a continuing series of cost overruns. I have therefore decided to cancel the eight RA-5C's scheduled for procurement in fiscal year 1964 and apply the funds thereby made available to offset these cost increases. The revised program will still provide six RA-5C's aboard each "Forrestal" class carrier which, in our judgment, is an adequate reconnaissance capability.

The number of Fleet Early Warning aircraft will decline somewhat through fiscal year 1969 as the much more effective E-2A enters the carrier aircraft inventory.

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This change will be effected in fiscal year 1965 as increased quantities of the E-2A become available. The previously approved E-2A procurement program has been revised downward in accordance with the new requirement.

## 2. ASW - Surveillance and Ocean Patrol Forces

Although we have done a great deal of work on the anti-submarine warfare problem during the last year, there are still major uncertainties to be resolved. We know that the Soviets are building nuclear-powered submarines, both missile-firing and attack, and we also know that their nuclear-powered submarines now in operation are not as good as ours. But we do not know how long it will take them or how successful they will be in catching up to us. Accordingly, the ASW force structure shown on Table 7 must be considered highly tentative beyond fiscal year 1967.

### a. ASW Carriers

We now have nine CVS's, all "Essex" class. These ships are still highly serviceable as ASW carriers, since they have the speed, range, and space required for all ASW weapons systems now current or likely to be developed in the next few years. Moreover, the older CVS's will be gradually replaced by the more up-to-date "Essex" class CVA's, as they are in turn replaced by new "Forrestal" class ships in the attack carrier force. As a result, we have deleted the previously programmed CVS from the fiscal year 1968 shipbuilding program.

The ASW carrier forces will continue to be equipped with both fixed-wing and helicopter aircraft as shown on Table 7. We are now buying the S-2E long-range search aircraft for the fixed-wing requirement and the SH-3A for the helicopter. As these aircraft are delivered they will replace the older types. In fiscal years 1967-68 we plan to provide each carrier with a few A-4C's released from the attack carrier forces in order to give them a limited intercept and air defense capability.

### b. Attack Submarine Forces

By the end of the current fiscal year, the submarine forces, excluding POLARIS and REGULUS, will number 103 ships including 23 nuclear-powered. This total number will remain relatively stable over the program period, and of the total of 102 by fiscal year 1969, more than half will be nuclear-powered. This reflects the program I presented last year which called for the construction of six SSN's a year during the fiscal year 1965-68 period. Six more have now been added for fiscal year 1969 as shown on Table 8.

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These figures, however, must be considered highly tentative. The principal mission of these submarines in wartime would be [REDACTED]

[REDACTED] However, their effectiveness in these missions in the early 1970's is uncertain and would, as I mentioned earlier, depend importantly on relative progress in improving our ASW capabilities. Until we know more about these matters, we should not freeze our SSN program.

Of the conventionally-powered submarines in the active fleet, 12 were delivered to the Navy during or after the Korean War. We are planning to modernize these ships in fiscal years 1967-68, which should enable them to serve well into the 1970's. Nine submarines built at the end of World War II have already been modernized, and last year I told you that we planned to modernize an additional 15 of these submarines, starting in fiscal year 1965. However, further study of the problem convinced us that this planned modernization would not give these World War II submarines a significant combat capability against nuclear-powered submarines. Since the conventional submarine threat is declining, it now appears that there is little to be gained by modernizing additional World War II submarines.

c. Destroyer Escorts

There are now 23 destroyer escorts in the fleet. The program I presented to you last year would have provided 86 by end fiscal year 1971, and I said at that time "...we are all agreed that a substantial number of new escorts must be built if the ASW capabilities of the Navy are to keep pace with the growing submarine threat". Analyses completed during the last year fully support that conclusion and indicate that a further increase in the program will be required. The number previously planned would be sufficient to protect our naval forces, but would not be enough to convoy merchant shipping in time of war. We propose, therefore, to increase our planned construction program for fiscal years 1965-68 by 10 ships, 8 more in fiscal year 1965 and 2 more in fiscal year 1966, as shown on Table 8. We also propose to continue the development of the SEA HAWK, the Navy's new escort which is being designed from the keel up as an integrated ASW weapon system. Construction of a prototype is scheduled for fiscal year 1966. For fiscal year 1969 we now envision a tentative program of 26 DE's or 17 SEA HAWKS, depending on the success of the development program.

By end fiscal year 1964, there will also be 195 other destroyer types in the active fleet, including multi-purpose and ASW ships. To improve our ASW capabilities, we now plan to retain in the active fleet 22 DD's previously scheduled for retirement to the Reserve Training Program. Though their ASW capabilities are modest, they are available now and in a high state of readiness and can be continued in the force at a small additional cost.

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d. Patrol Craft

Last year we programed the construction of six small patrol craft in fiscal year 1965 and ten more in fiscal year 1966, and I still recommend that program. However, we now propose to provide increased speed (up to [redacted] by the addition of a gas turbine to the diesel propulsion system.

e. Patrol Aircraft

As shown on Table 7, the number of basic patrol aircraft will decline somewhat during the fiscal year 1965-69 period as the older shore-based SP-2's begin to phase out and the new P-3A comes into the inventory. We propose to reduce the number of patrol squadrons from 30 to 29 by phasing out one squadron of obsolescent SP-5 seaplanes in fiscal year 1965. A force of 29 squadrons in 1970, most of which will be equipped with the new P-3A, should provide sufficient aircraft for surveillance operations and escort duty as well as for fleet support and other uses. In addition, 120 Naval Reserve ASW patrol aircraft will also be available.

3. Multi-Purpose Ships

On Table 7, under the heading "Multi-Purpose Ships", we have grouped those ships which possess a variety of capabilities including anti-submarine warfare. There will be 255 such ships in the fleet at the end of the current fiscal year, the bulk of which will be destroyer types. Fifty-four of these ships will have a guided missile capability - 12 cruisers (one nuclear-powered), 20 frigates (one nuclear-powered) and 22 guided missile destroyers. Two guided missile frigates and one guided missile destroyer will join the fleet in fiscal year 1965 and seven more guided missile frigates in fiscal year 1966.

The program I presented to you last year provided for the conversion of two DL's (Gun) to TARTAR DLG's and five Class-931 DD's to TARTAR DDG's in fiscal year 1964, plus 15 additional TARTAR conversions in fiscal year 1965, and one TERRIER conversion in fiscal year 1966. Congress authorized and appropriated \$183 million to carry out the fiscal year 1964 phase of the program. However, the Navy now wishes to install on the Class-931 DD's a new, more elaborate radar which has recently become available, thus increasing the conversion costs. It now appears that the \$183 million provided for 1964 will cover the costs of the two DL and only four of the Class-931 DD conversions, but with sufficient funds remaining to provide the fifth DD with more modern ASW equipment - an improved sonar and a stand-off weapon.

As for the remaining 16 conversions, we believe they should be deferred until we are confident that the TARTAR improvement program has been successfully accomplished or a better missile system is available.

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Last year we had also planned to construct a number of TYPHON frigates (one nuclear-powered) in the fiscal year 1965-68 period. However, the TYPHON, which was intended to remedy many of the limitations inherent in the present "3-T" systems, has, upon further study, turned out to be far too large, complex, and expensive to be deployed. For example, the radar alone contains about 40,000 active elements and the antenna system uses 1,700 travelling wave tubes. Even if a 3,000-hour life expectancy could be achieved for the tubes (currently about 1,000 hours) one tube would fail, on an average, every 1-2/3 hours. Accordingly, we have decided to delete the TYPHON DLG's from the program and terminate the development of the TYPHON weapon system, although we will complete the Phase I tests of the radar aboard the NORTON SOUND in fiscal year 1965 because of the potential applicability of some of its principles to other systems.

The cancellation of the TYPHON should not be interpreted as reflecting less concern for the development of improved fleet air defense. To the contrary, we now propose to program about \$400 million over the fiscal year 1965-69 period for further improvements to existing ship-to-air missile systems, for the development of a new standardized missile to replace TARTAR and TERRIER, and for the development of a completely new surface-to-air fleet missile system. Almost \$63 million has been included in the fiscal year 1965 request for R&D alone on fleet missile systems.

#### 4. Mine Warfare Forces

The mine warfare program proposed for the fiscal year 1965-69 period is essentially the same as that presented to the Committee last year. A force of about 88 ships will be maintained throughout the period. Sixteen new ships will be constructed in fiscal years 1966-68 as replacements for older ships, the same number as planned last year. Some additional funds will be spent for mine procurement and R&D to provide still further significant increases in overall effectiveness. For example, the development of a mine-sweeping helicopter will be accelerated. Such a vehicle would have the advantage of speed, relative safety, and lower cost over present minesweeping methods.

#### 5. Amphibious Ships

Three years ago we increased substantially the amphibious lift capacity from 1-1/2 division/wing teams to two, and increased the number of ships from 111 to 131. However, most of these ships are slow - 8-1/2 to 13 knots. Furthermore, a recent analysis discloses a shortage of combat vehicle lift which seriously limits our present amphibious assault capability. While we do have ships in the reserve fleet, it would take up to 8 months to reactivate a sufficient number of them to overcome this deficiency and these ships would still be in the slow 8-1/2 to 13 knot class. We, therefore, propose another substantial increase in our amphibious lift capabilities,

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both in modernization and in number; and we are now programing a force [REDACTED] ships for fiscal years 1968-69 as compared with our previous program [REDACTED] ships.

This increase would be achieved: (1) by retaining in the active fleet ships which had previously been scheduled for retirement; and (2) by increasing the construction/conversion program from 37 ships previously planned for fiscal year 1965-68 to 54 ships, plus 13 more in fiscal year 1969. Specifically, construction of the LSD's (Landing Ship Dock) would be doubled and that of the new LST's (Landing Ship Tank) would be tripled. These types are currently the slowest in the force. The previously proposed LPD (Amphibious Transport Docks) and LPH (Amphibious Assault Ship) construction program would be reduced by half to bring it into balance with the other programs. A total of 11 ships would be constructed or converted in fiscal year 1965 at a cost of \$427 million.

These new ships, together with the modernized ships now in the fleet or under construction, would provide by fiscal year 1972 a [REDACTED] Lift for the remaining 1/2 division/wing [REDACTED] team would be provided with older ships.

#### 6. Logistic and Operational Support Ships

There are now about 160 logistic and operational support ships in the force and we plan to maintain about that number throughout the program period. I had hoped last year that we would be able to phase more of the older ships out as new and more efficient ships were introduced. However, our latest analyses show that the previously approved program falls somewhat short of the requirement. We now propose a construction/conversion program of 12 logistical and operational support ships in fiscal year 1965 and a total of 72 such ships over the fiscal year 1965-69 period. Finally, in order to provide an interim capability, we propose to retain a small number of AE's (ammunition ship) and AO's (oiler) in the active fleet beyond their previously scheduled retirement dates until the proposed accelerated construction program makes new ships available.

The total Navy General Purpose Forces shipbuilding program is shown on Table 8.

#### 7. Other Navy Aircraft

As shown on Table 7, the Navy will maintain 81 Fleet Tactical Support Aircraft during fiscal year 1965-69, 31 heavy transports, 14 medium transports and 36 C-1A's. These latter aircraft are used to deliver high priority items directly to the carrier forces.

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By end fiscal year 1965 and for the remainder of the program period, the Navy will maintain about 270 Fleet Support Aircraft, slightly above the number as planned last year. Of this total, 30 are used for operational development of fleet tactics, 91 for CVA/CVS sea rescue, and for use aboard icebreakers, underway replenishment ships, etc. and 149 as fleet utility support.

The inventory of Other Support Aircraft is scheduled to decline about 16 percent over the fiscal year 1965-69 period.

#### 8. Marine Corps Forces

As shown on Table 9, during fiscal year 1965 and throughout the program period, the Marine Corps will continue to maintain three combat divisions and three air wings plus combat and service support units, manned by about 190,000 active duty personnel.

The major realignment of the Organized Marine Corps Reserve that I described to you last year has now been accomplished. The drill pay Reserve now includes, with the exception of certain headquarters elements which will be formed by the active forces upon mobilization, most of the elements of the fourth division/wing team in addition to certain elements required to augment active forces upon mobilization. The Reserve battalions, as well as every other Marine Reserve unit, have regular commissioned and non-commissioned officers who serve as advisors. These regular personnel will accompany their Reserve units upon mobilization. Additional regular personnel, primarily technicians, would be added to the fourth division/air wing upon mobilization, up to about 10 percent of the total strength.

As shown on Table 9, all Marine Corps forces will remain stable throughout the program period, except for HONEST JOHN missile batteries. With respect to the HONEST JOHN, three batteries have been phased out of the Marine Corps force this fiscal year and the missiles returned to the Army. The HONEST JOHN has proven to be too unwieldy for the kinds of amphibious operations that the Corps would most likely be called upon to undertake, and it was felt that the new HOWTAR 4.2" mortar and the new self-propelled M-109 howitzer being delivered this year, together with such new high performance aircraft as the A-6A, would provide sufficient artillery and close ground support capability.

At the end of the current fiscal year, the three Marine Air Wings will have about 1,155 combat and combat support aircraft. The number of fighter and attack aircraft will decline during the fiscal year 1965-69 period as more effective aircraft, such as the F-4B, the A-6A, and the VAL, replace the aging F-8's and older A-4's. However, the number of helicopters will increase by nearly 20 percent during this period reflecting the greater emphasis on vertical envelopment capability.

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To meet Marine Corps fighter requirements, we will continue to buy the F-4 and by end fiscal year 1968, all 15 fighter squadrons will be equipped solely with F-4's armed with SIDEWINDER and SPARROW air-to-air missiles.

For the attack squadrons, we will continue to buy the A-6A to provide the Marine Corps with an all-weather, close-air support and interdiction capability. We also plan to introduce the new VAL aircraft, now under development for the Navy, into the Marine Corps inventory by fiscal year 1968.

For the photographic reconnaissance mission, we will continue to buy the RF-4B, which will begin replacing the obsolescent RF-8A in fiscal year 1966.

For the vertical envelopment mission, we are buying large quantities of CH-46A medium helicopters, a tandem rotor, twin turbine-powered helicopter, with a normal payload of 4,000 lbs. or 17 men. This aircraft will be used to replace the single rotor, reciprocating engine UH-34D which has a cargo load of only 3,500 lbs. or 12 men. The first CH-46A squadron is scheduled to be operational in fiscal year 1964. By fiscal year 1966 the Marine Corps will receive the first deliveries of the CH-53A all-weather cargo and troop transport helicopters.

#### 9. Navy and Marine Corps Reserve Forces

In addition to the ships in the active fleet, the Navy also maintains in full operational readiness a force of nearly 40 destroyers and escorts and 12 mine warfare vessels, as shown on Table 10. As more modern ships become available from the active forces, some of the older ships will be phased out.

The Marine Corps Reserve, as discussed earlier, supports the elements of the fourth division/wing team. By end fiscal year 1965 we will have about 805 Navy and Marine Corps Reserve aircraft as shown on Table 10. This number will remain quite stable through fiscal year 1969.

#### 10. Navy and Marine Corps Aircraft Procurement

Last year I informed the Committee that the Navy and the Marine Corps aircraft requirements were in need of further study. Such study has now been completed and a number of changes, which I will discuss specifically, have been made in the procurement programs presented last year. As shown on Table 11, we propose to buy 584 aircraft of all types in fiscal year 1965 at a cost of \$1,389 million to continue the modernization of the Navy and Marine Corps aircraft inventories.

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To meet the fighter requirements of both the Navy and Marine Corps, we propose the procurement of [redacted] F-4's in fiscal year 1965, compared with 125 last year. [redacted] F-4's were also programmed for each year, through fiscal year 1968. However, our review of the Navy and Marine Corps aircraft requirements has led us to the conclusion that the number of fighter aircraft per Navy squadron should be reduced from 14 to 12, and that the capability of the F-4 to operate from "Essex" class carriers is marginal. Accordingly, the previously programmed fiscal year 1967 quantity has been reduced to 96 and the 1968 program has been eliminated.

The fiscal year 1965 budget also includes \$27 million for the AN/APG-59 missile control system to improve the SPARROW missile system effectiveness of the F-4's to be procured in the latter part of fiscal year 1965 and succeeding years. [redacted]

The procurement schedule shown in Table 11 for the F-111B (TFX) is the same as that presented last year, but with increased procurement now planned for fiscal year 1968, and with the first delivery still in fiscal year 1966.

For the attack role, we had planned to continue the procurement of the A-4E at the rate of 120 aircraft a year in fiscal year 1965 and 1966. However, as I noted earlier, we have now decided to proceed with the development of the new VAL light attack bomber and no additional A-4E's will be procured after fiscal year 1964. We have requested the reprogramming of \$19 million in fiscal year 1964 funds and \$15 million in DoD Emergency Fund to initiate the development of the VAL. Another \$39 million to complete development and \$106 million to start production (35 aircraft) is included in the fiscal year 1965 budget. As shown on Table 11, we will be buying this aircraft in relatively large numbers through fiscal year 1969.

Funds are also included for the procurement of [redacted] A-6A's in fiscal year 1965, [redacted] more than previously programmed for that year. Our aircraft requirements review indicates that an additional [redacted] of these aircraft will be required in the fiscal year 1966-68 period, instead of the [redacted] we programmed last year for fiscal year 1966. As I noted last year our plans for this aircraft were highly tentative.

For the reconnaissance [redacted] role 27 RF-4B's will be procured in fiscal year 1965, 3 more than previously planned. This will make up the congressional reduction of 3 aircraft in the fiscal year 1964 program and complete the Marine force requirement. As I noted earlier the procurement of 8 RA-5C's in fiscal year 1964 has been cancelled.

Last year I informed you that we planned to procure [redacted] E-2A's for the fleet early warning mission in the fiscal year 1965-68 period, [redacted] them in fiscal year 1965. However, this aircraft is still in the development stage

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and large cost increases amounting to about 75 percent of the original estimate are now indicated. On the basis of a study of the air early warning mission, we believe that we can complete our requirements with about 32 more of these aircraft. Twenty have, therefore, been included in the 1965 budget and the remaining 12 are scheduled for 1966.

For the ASW carrier forces we had planned last year to buy [ ] S-2E fixed-wing aircraft and [ ] SH-3A helicopters in fiscal year 1965. Our review of this requirement indicates that the number of SH-3A's can be reduced to 24 in 1965 but that another [ ] S-2E's will be required in 1966. Accordingly, we have included funds in the 1965 budget for [ ] S-2E's and [ ] SH-3A's. And in addition we are requesting funds to improve the electronics and sonar capabilities of the SH-3A helicopter for tracking high-speed, deep-diving submarines.

For the ASW patrol mission we have included [ ] P-3A's, the same number previously programmed. However, as I indicated earlier, the number of squadrons is being reduced from [ ] and of these [ ] squadrons, we now plan to equip [ ] with the P-3A by end fiscal year 1969. The other [ ] squadrons will be equipped with older but still serviceable aircraft. Accordingly, the number of P-3A's to be procured in 1966-68 is being reduced from [ ] per year. A total of [ ] utility and cargo helicopters is included for the Navy and Marine Corps in the 1965 budget - [ ] UH-1E's, [ ] CH-46A's, and [ ] CH-53A's.

We have included 12 C-2A's in the 1965 budget for the CVA/ CVS carriers. Eleven more in 1966 will complete the requirement. In the trainer category we propose to procure 36 T-2B's in fiscal year 1965, based upon revised pilot training requirements.

#### 11. Other Navy Procurement

The tentative logistics objective for the Navy in 1965 is to acquire sufficient stocks to support [ ] of combat consumption with an average of two-thirds of the force committed. More specifically, we propose to provide ship fills and initial equipment allowance for the active fleet and for selected reserve ships, plus [ ] of combat consumption for the active fleet and high readiness reserve ships [ ] and [ ] for other selected reserve ships [ ]. However, with respect to anti-aircraft missiles, the quantities provided have been adjusted to conform to the estimated number of aircraft targets that might be engaged.

With respect to attack carrier aviation, our tentative objective is to provide initial allowances and combat consumables to support [ ] carrier months of operation [ ].

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To achieve these materiel objectives we are requesting about \$900 million for Navy missiles, ordnance, ammunition, and other combat consumables - a decrease of about \$78 million over the amount provided last year.

Last year we had planned to procure [REDACTED] SPARROW III air-to-air missiles in fiscal year 1964 for the Navy. It now appears that the combat and training requirements are far less than previously thought necessary. Therefore, we can dispense with the fiscal year 1964 buy, and procure [REDACTED] SPARROW III 6-B missiles in fiscal year 1965. Moreover, we intend to transfer several thousand SPARROW III 6-A missiles from the Navy to help fill Air Force requirements. Future inventory adjustments will be directed toward achieving the best joint inventory position consistent with each Service's requirements.

We also plan to procure [REDACTED] SIDEWINDER I-C (IRAH) air-to-air missiles in fiscal year 1965, a quantity [REDACTED] percent higher than this year.

In fiscal year 1965, we will continue development work on the PHOENIX air-to-air missile at a cost of \$73 million. We plan to initiate procurement of this missile in phase with the F-111 (TFX) delivery program.

The procurement of TARTAR, TERRIER, and TALOS funded through the current fiscal year will provide by end fiscal year 1965 an average inventory of [REDACTED] for all ships using these missiles. For fiscal year 1965, due to the difficulties the Navy continues to experience with these missiles, I propose that TALOS, TARTAR and TERRIER procurement be limited to that required to keep production lines open until the new standardized missile is available, probably in fiscal year 1966. [REDACTED]

The current year's program for air-to-surface ordnance originally included [REDACTED] BULLPUP short-range supersonic tactical missiles, [REDACTED] each of the A and B models. However, a recent study of inventory requirements indicates that the Navy's present stocks are high enough to permit cancellation of the BULLPUP A's in the fiscal year 1964 program. Part of the savings of this cancellation would be used to offset a \$4 million cost increase in the "B" missile. For fiscal year 1965, we propose to procure another [REDACTED] of the B missiles at a cost of \$36.8 million.

Our continuing review of ordnance requirements had also resulted in lower Navy inventory objectives for the CBU type bombs and SADEYE/GLADEYE weapon dispensers. As a result we have decided to cancel the fiscal year 1964 procurement of over [REDACTED] CBU's, but we propose to buy [REDACTED] more SADEYE/GLADEYE's than had previously been planned for this year. For fiscal year

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1965 we now propose to buy [redacted] of these weapons,

We also propose to undertake the conversion of nearly 140,000 of the 500 lb. and 250 lb. bombs now in the inventory by equipping them with a simple retardation device designed to increase the safety and accuracy of low level delivery, and to procure a large number of new SNAKEYE I 500 lb. bombs. The fiscal year 1965 element of this program is estimated at about \$35 million.

The 1965 program includes large sums for the procurement of mines and torpedoes. Last year we made our first substantial procurement of the MK-46 torpedo, which has much greater effectiveness against high speed, deep submergence, nuclear-powered submarines than the MK-44. We now plan to increase our fiscal year 1964 buy of the MK-46 from the 400 previously planned to 550, at an increased cost of \$7.2 million (to be obtained by reprogramming) and to double our previously planned fiscal year 1965 buy from 800 to 1,600, at a total cost of \$86.3 million.

We are also planning major increases in electronics procurement over the current fiscal year. Additional computer capacity will be provided for the National Emergency Command Post Afloat (NECPA) which will be discussed in the General Support section of the statement. We also propose to continue procurement for the Navy Tactical Data System (NTDS), the general purpose fleet command and direction system. In addition to improvements in AAW and ASW electronics equipment, the Navy's shipboard radio communications modernization program will be accelerated. The latter program is designed to secure a modern, compatible communications system for all ships, large and small, and will be compressed within a single overhaul cycle during fiscal years 1965-68, at a procurement cost of about \$53 million in fiscal year 1965. The resultant improvement to overall fleet communications by 1969 will be at least 100 percent.

The proposed 1965 program also provides for substantial procurements of sonobuys - JULIE, JEZEBEL, Bathythermograph, etc., - at a cost of about \$50 million.

Approximately \$43 million is included in the 1964 Navy program for the procurement of automatic data processing equipment. Reductions in rental costs are estimated at \$4.8 million in 1964 and \$17.4 million per year thereafter.

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## 12. Marine Corps Procurement

Our tentative logistics objective for the Marine Corps ground forces is to provide sufficient materiel to equip and sustain the four divisions in combat for [REDACTED] For [REDACTED]

[REDACTED] Marine Corps air wings, our tentative objective is to provide sufficient materiel to equip and sustain all 4 wings in combat [REDACTED] with two-thirds of the force engaged [REDACTED] of combat consumption.

A total of \$203 million is recommended for Marine Corps procurement in fiscal year 1965, about 7 percent less than was provided for fiscal year 1964. The accelerated rate of equipment modernization and the build-up in mobilization reserve stocks in the fiscal year 1962-64 period permits a somewhat lower level of procurement now.

For 7.62mm ammunition \$9.9 million is requested. About \$38.4 million is proposed for other ammunition primarily for artillery. About \$8.3 million is included for the procurement of 280 of the M-102 lightweight 105mm howitzers which are intended to replace the World War II type 105mm howitzers and provide substantial increases in range and killing power. We also propose procurement of 1,505 REDEYE ground-to-air missiles for air defense in forward battle areas.

The 1965 request provides for procurement of substantial numbers of tactical vehicles, although fewer than last year, including 1,200 1/2-ton "Mechanical Mules" and additional 1/4-ton, 3/4-ton, and 2-1/2-ton trucks.

In the electronics category, the Marine Corps would buy, in fiscal year 1965, a variety of radar, radio, and other communications equipment, including \$16.5 million for 11 AN/TPS-32 helicopter transportable, high data rate, height-finding radars for use with the Marine Tactical Data System (MTDS). The MTDS is composed of a number of Tactical Air Operations Centers (TAOC's), each responsible for an air defense sector of the beach-head area.

[REDACTED] the Tactical Air Control Centers (TACC). The TACC controls and coordinates the various TAOC's and integrates the MTDS with the air control systems of the other three Services. In fiscal year 1965, we propose to procure two TAOC's and two TACC's at a cost of about \$39 million.

## D. AIR FORCE GENERAL PURPOSE FORCES

Our principal concern with regard to the Air Force tactical forces during the last three years has been the urgent need to build up adequate air support for the Army ground forces so that they could engage, if needed, in a

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sustained non-nuclear conflict. As I noted earlier, superior tactical air power is essential to our position in Europe and would be of great importance in local war situations in any part of the world where our forces might be involved.

A substantial improvement in tactical air power has already been achieved. The tactical fighter forces have been increased from 16 wings with about [redacted] aircraft at the end of fiscal year 1961, to 21 wings with about [redacted] aircraft. The rate of procurement of Air Force tactical fighters and reconnaissance aircraft has been increased from 180 in fiscal year 1961 to 435 in fiscal year 1964. In addition, a Special Air Warfare Force of [redacted] aircraft is being created for counterinsurgency operations.

#### 1. Tactical Fighter Forces

Last year we had planned to maintain the fighter force at 21 wings and [redacted] aircraft. We had also tentatively planned to retain some [redacted] F-102 interceptors deployed overseas. For a number of reasons, we now think it wise to withdraw the F-102's during the next few years. In Japan the growing capability of the indigenous air defense forces should permit a reduction in our contribution there. In Europe, [redacted]

Accordingly, we now propose to increase the tactical fighter force to 24 wings with [redacted] aircraft by fiscal year 1968, as shown on Table 12, principally by retaining the F-100's in the force longer than planned last year. The F-100's have ground attack capability, while the F-102's have none; and the F-100 can be refueled in the air and thus can be rapidly deployed overseas, while the F-102 cannot. Moreover, as I noted last year, the rapid buildup of the multi-purpose F-4's during the next few years will greatly increase our air-to-air combat capability.

Three squadrons of F-102's will be phased out of the active forces during the current fiscal year, four more during 1965, and the remaining squadrons in fiscal year 1968. The F-102's thus released will be transferred to the Air National Guard for Continental Air Defense, as I noted earlier, and some may be used for the Military Assistance Program.

We did consider the alternative of increasing procurement of F-4's in order to permit the phase-out of the F-100's and F-105's as planned last year. However, considering the marked qualitative superiority of our tactical aircraft and the many studies now in progress which may change our present concepts, I do not believe we should increase F-4 procurement at this time. Rather, we should continue with the very substantial program proposed last year, totaling about [redacted] aircraft [redacted] wings).

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Through fiscal year 1963, 337 F-4's were funded, and [redacted] will be bought this year. The first F-4's were accepted by the Air Force last November and the first wing will be equipped early in fiscal year 1965. For 1965 we propose to procure [redacted] F-4's at a cost of \$506 million.

While we do not propose an increase in the number of F-4's, it does appear desirable to initiate an avionics improvement program for this aircraft. Although the F-4C is the best fighter/interceptor available today, it does have [redacted] weaknesses which can be largely remedied by improved electronics:

Accordingly, we now plan to install [redacted] thus greatly improving their ground attack effectiveness at an incremental cost of less than three percent. In addition, [redacted] of the [redacted] wings will also be equipped with a [redacted]

This improvement program will necessitate a temporary reduction in the previously planned production rate of Air Force F-4's, from [redacted] per month, which was to be reached by July 1964, to [redacted] per month, and will have the effect of deferring [redacted] aircraft (\$178 million) from the fiscal year 1963-65 period to fiscal year 1967. The [redacted] per month rate will be reached in May 1966.

The tentative procurement schedule for the F-111A, as shown on Table 13, remains the same as last year with initial procurement to be made in fiscal year 1965. About \$233 million has already been provided for the development of this aircraft and \$321 million more is included in the fiscal year 1965 budget request. In addition, about \$159.6 million is included for the procurement of the first ten aircraft, initial spares, and long leadtime components.

## 2. Tactical Bombers

We have decided to transfer the remaining B-57 wing (48 UE aircraft) to the Air National Guard about six months sooner than planned last year, with the result that it drops out of the active force structure during the current fiscal year.

## 3. Tactical Reconnaissance Forces

Currently, the tactical reconnaissance force is composed of 14 squadrons with about 235 aircraft, RF-101's and RB-66's, as shown on Table 12. As planned last year, we intend to increase this force to

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20 squadrons with 360 aircraft (plus one RB-66 ECM squadron of 12 aircraft) by the end of fiscal year 1967.

As a result of congressional action on the fiscal year 1964 request and the need to provide aircraft for a new combat crew training school (CCTS), there will be a slippage from last year's program of two squadrons of RF-4C's in fiscal years 1965-66. To help offset this slippage, two additional squadrons of RB-66's will be held in the force through fiscal year 1965.

For fiscal year 1965, \$396 million is requested for 144 additional RF-4C's bringing the total funded to 278. While we had intended last year to procure 164 of these aircraft in fiscal year 1965, I believe it would be more economical to hold at 12 aircraft per month and defer funding of the remaining 20 RF-4C's until the following year.

#### 4. KB-50 Tankers

The reduction of 20 KB-50 tankers from the force structure in the fiscal year 1964-65 period stems from a decision to phase out one of the squadrons about two years earlier than previously planned.

#### 5. Special Air Warfare Forces

At the end of fiscal year 1964 the Special Air Warfare Forces will [REDACTED] These forces include such aircraft as the B-26, the T-28, the A-1E, the C-46, and the U-10. During fiscal year 1965 we propose to increase the force by transferring [REDACTED] C-123's from the Airlift/Sealift forces to this mission where, based on our experience with this aircraft in Vietnam, they can be put to much better use.

#### 6. Tactical Missiles

Presently, we have five MACE-A (MGM-13B) and one MACE-B (MGM-13C) tactical missile squadrons in Europe, and two MACE-B squadrons in Okinawa. Although these older missiles are vulnerable to surprise attack, they do provide a relatively cheap nuclear delivery potential, and we propose to keep them in the force for the time being.

Currently under development is the Medium Range Ballistic Missile. This highly accurate, mobile, quick reacting theater strike weapon with [REDACTED] is being designed for deployment either on [REDACTED] land or at sea. Filling the range gap between the 400-mile PERSHING and the long-range POLARIS and ICBM's, this MRBM will, we believe, prove an extremely valuable insurance program.

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## 7. Air National Guard Forces

The Air National Guard General Purpose Forces at the end of fiscal year 1964 will consist of 19 fighter squadrons, 13 reconnaissance squadrons, 3 squadrons of B-57 tactical bombers and 3 squadrons of KC-97 tankers - a total of about 700 aircraft. The inventory of Guard aircraft is expected to increase to about 820.

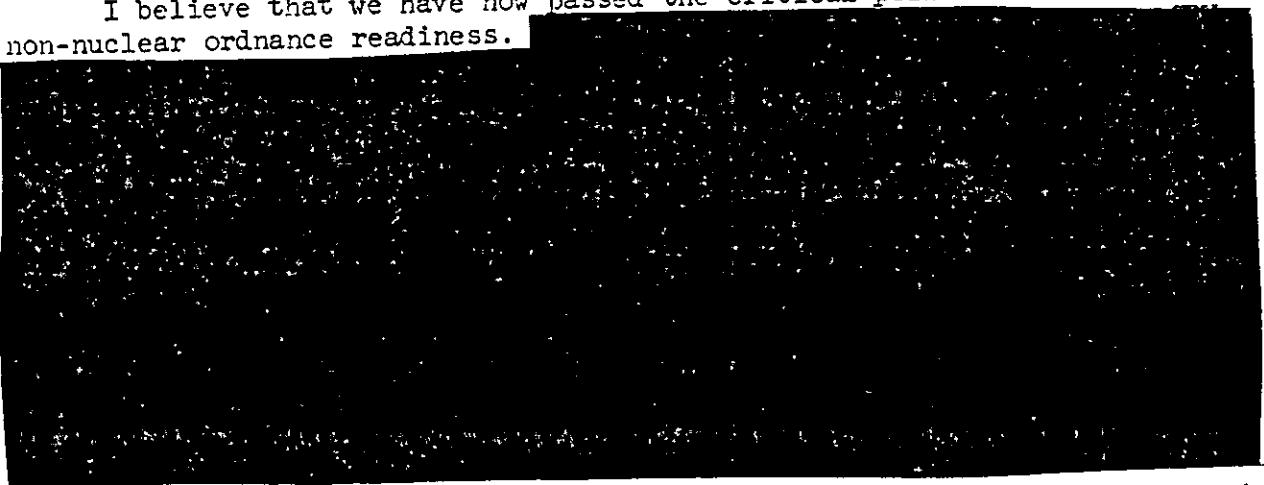
There have been a number of changes in the composition of the Air National Guard's force structure from that planned last year, principally as a result of decisions made in connection with the active force structure which I discussed previously. Thus, the Air National Guard will not receive the F-100's and F-105's as soon as previously planned, but they will receive the 45 B-57's and will retain their F-84's somewhat longer. Moreover, after fiscal year 1966, we now plan to build the Guard's F-100 force to 550 aircraft - about 175 more than previously scheduled.

With respect to tactical reconnaissance, the Air National Guard would support 12 squadrons throughout the program period with the RF-101 tentatively scheduled to phase-in during fiscal year 1969. The KC-97 fleet maintained by the Guard for in-flight refueling training will rise from three squadrons to five during fiscal year 1965.

## 8. Other Air Force Procurement

As I have pointed out over the past few years, an adequate stock of non-nuclear ordnance is one of the most critical elements of our overall non-nuclear readiness posture. However, until very recently Air Force stocks of modern non-nuclear ordnance were in very short supply.

I believe that we have now passed the critical point in achieving non-nuclear ordnance readiness.



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Accordingly, we have included in our 1965 budget request a total of \$254 million for tactical non-nuclear ordnance, compared with \$303 million for 1964, \$242 million for 1963 and \$255 million for 1962. Only about \$98 million was procured in 1961. Included in the 1965 procurement program are [REDACTED] BULLPUP-B missiles, over [REDACTED] BULLPUP trainer missiles, about [REDACTED] SHRIKE anti-radar missiles, another increment of CBU-type bombs and the first procurement of the SNAKEYE bomb. The fiscal year 1965 program also provides for the continued procurement of SPARROW air-to-air missiles, fire bombs, fuel tanks, pylons, rocket pods and other consumables. As mentioned earlier, Air Force SPARROW stocks will be further increased by the transfer of several thousand missiles from the Navy.

Also, about \$61 million is included in the fiscal year 1964 Air Force program for the procurement of automatic data processing equipment. Reductions in rental costs are estimated at \$11 million in fiscal year 1964 and \$21.8 million per year thereafter.

#### 9. Tactical Aircraft Shelter Construction

Last year I pointed out that our tactical aircraft deployed overseas are highly concentrated on a few bases and are therefore extremely vulnerable to destruction on the ground by a surprise enemy attack, either nuclear or non-nuclear. While it appears excessively costly to provide these aircraft protection against a nuclear attack, substantial protection can be provided, and provided cheaply, against the threat of enemy non-nuclear attack. A test program for an earth-covered, steel shelter with an armor plate door costing about \$100,000 each has now been successfully completed.

Last year we requested \$30 million in order to permit the earliest possible initiation of work on the highest priority requirements. The item was eliminated from the fiscal year 1964 Military Construction Authorization Bill, apparently because a test program had not been completed and the belief that a runway repair capability had to be developed before the shelters would be useful. As I noted, the test program has now been completed. With regard to the second objection, the Air Force now has a program underway to develop a [REDACTED] runway repair capability which we expect would be fully in effect by the time the shelters are constructed.

We are now studying plans for reducing the vulnerability of expensive heavy maintenance facilities in Europe by consolidating such maintenance on rearward bases. Besides improving our chances of being able to repair battle damaged aircraft, we hope that this action, if it proves feasible, will also result in manpower, spare parts and foreign exchange savings.

The essential element of this overall effort, however, must be the aircraft shelter program which all of our studies show would greatly

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increase the numbers of our tactical fighters surviving a surprise non-nuclear attack. We believe that about [ ] of these shelters will be needed, approximately [ ] in Europe and [ ] in the Pacific. This should be sufficient to protect [ ] of our aircraft overseas, provided some protection for aircraft deployed in an emergency and protect runway repair equipment and other critical items essential for combat.

We are again requesting funds for this program in fiscal year 1965, this time in the amount of \$20 million for the first increment of shelters and I most strongly urge your support of this important program.

#### E. TACTICAL EXERCISES

Tactical exercises for elements of the general purpose forces serve many important objectives:

- (1) They enable the units involved to maintain a high state of combat readiness by frequent practice of their skills.
- (2) They provide an opportunity for elements of one Service to work closely with other elements of its own or other Services or those of our Allies upon whom they would have to depend in wartime.
- (3) They enable Defense planners to test new military concepts and to discard those which prove bad, and give us confidence in those which prove successful.
- (4) They show the world, including our potential enemies, that our limited war capability is both great and real.

During the last year we began a series of large-scale tactical exercises. Big Lift, the deployment by air of an air wing plus the personnel of the entire 2nd Armored Division from the United States to Germany was the first of these. During fiscal year 1965, additional exercises of this type are planned and provision for them has been made in the "joint exercise" budget of \$109 million.

All of the Services, of course, will also conduct extensive programs of unit exercises not involving other Service participation, or combined exercises which fall outside of the definition of the joint mobility exercises directed by the Joint Chiefs of Staff. The Navy and Marine Corps have scheduled a full program of training and readiness exercises. As in recent years, these will emphasize amphibious, ASW, mine warfare, strike, and anti-air warfare capabilities. Finally, we will also participate in a large number of joint exercises with elements of allied military establishments, including those of NATO, SEATO and Latin American Countries.

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F. FINANCIAL SUMMARY

The General Purpose Forces Program which I have outlined will require total obligational authority of \$18.5 billion in fiscal year 1965. A comparison with prior years is shown below:

(\$ Billions, Fiscal Years)

	<u>1962</u> <u>Original</u>	<u>1962</u> <u>Final</u>	<u>1963</u> <u>Actual</u>	<u>1964</u> <u>Estimated</u>	<u>1965</u> <u>Proposed</u>
Total Obligational Authority	14.5	17.5	17.8	18.1	18.5

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## V. AIRLIFT AND SEALIFT FORCES

Closely related to the General Purpose Forces are the airlift and sealift forces required to move them promptly to wherever they might be needed. Included in the airlift forces are both the MATS transports and the Air Force Tactical Air Command troop carrier aircraft. The sealift forces include the troop ships, cargo ships and tankers operated by the Military Sea Transportation Service and the "Forward Floating Bases".

### A. THE REQUIREMENT

The requirements for Airlift and Sealift Forces are not susceptible to precise calculation.

First, they are subject to most of the same uncertainties which afflict the General Purpose Forces - the wide variety of possible contingencies, the uncertainties concerning the military strength of our opponents, etc.

Second, the quick reaction capability which these forces help to provide can be achieved in a number of ways: by forward deployment of military forces, by the prepositioning of equipment and supplies either on land or in ships, and by the deployment of both men and equipment from a central reserve in the United States. Each of these alternatives, and variations of them, has certain advantages and disadvantages. And, as I pointed out last year, our present program is based on using a combination of these various methods, but we still have much to learn about the proper balance among them.

Finally, while we have a vast background of experience in the sealift area, we are only now just beginning to test realistically the potentials of airlift. As has been pointed out before, it has long been recognized that a rapid deployment capability can, to a significant if imprecisely known extent, substitute for additional forces. Once having invested in this capability, however, it may also become economical to shift even more of the logistical burden from other modes of transportation to airlift. Moreover, such unanswered questions as the future theater air mobility requirements for Army units, the concepts for which are now being tested, raise other uncertainties about the entire lift problem.

Nevertheless, the requirements determination problem is by no means unmanageable and, during the past year, our studies and exercises have added considerably to our knowledge.

With respect to sealift, our studies indicate that, generally, our present ocean-going cargo capability (including the large available Merchant Marine) is sufficient to meet wartime needs. Presently available troop sealift, while not completely adequate for every possible contingency, is not a matter of serious concern inasmuch as there appears to be a concurrent surplus of passenger airlift capability in every case we have examined.

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Indeed, our chief problem in this area appears to be qualitative, and I will discuss this aspect later.

B. AIRLIFT

With respect to the planning of airlift, our critical requirements appear to be those occurring in the first 30 days of a large-scale limited war in a remote area. Up until now it has not been necessary to determine peak deployment requirements with any precision, since we were obviously far short of any reasonable goal. However, as shown on Table 14, by 1968 our airlift capability will be about four times that of 1961 and a better measure of our ultimate needs and goals is now necessary.

[REDACTED] During the past year, a number of studies have been made of the lift that would be required to move and support various size forces to this area under a variety of assumptions. Based on the results of these studies, we now believe that we clearly require an increase in deployment capability [REDACTED] of about 20,000 tons and perhaps as much as 65,000 tons over the amount previously programmed to be achieved by fiscal year 1968 (60,000 tons) -- depending upon the amount of prepositioning which proves to be economically and militarily feasible. Prepositioning (particularly of non-air transportable items) will have to be greatly expanded in any event, but it cannot completely substitute for airlift.

Accordingly, we now propose to increase the airlift program by adding seven squadrons (112 UE aircraft) of C-141's to the force structure at the end of the program period, raising the total number of UE C-141's from 208 previously planned for end fiscal year 1968 to 320 by end fiscal year 1970. This increase would permit the cancellation of the last two squadrons of C-130's (32 UE aircraft) with a savings of about \$15 million per year in operating costs, in addition to the reduction in investment costs. Ten of the 112 additional UE C-141's would replace the capacity lost by this cancellation.

We now have 40 C-135's in the force. These aircraft were not designed for the sustained, heavy duty operations typical of MATS and were procured to provide only an interim modernization of our airlift capacity pending the delivery of more capable aircraft. To continue them in the MATS role would require expensive wing modifications costing as much as \$50 million. Such an outlay would not be justified inasmuch as these C-135's are virtually ideal aircraft for use in other Air Force missions (e.g., Air Weather Service and test bed aircraft for R&D projects) for which aircraft might otherwise have to be procured. Twenty-four of the additional UE C-141's could do the work of these 40 C-135's, with a savings in annual operating costs of about \$10 million a year.

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The net increase of 78 UE C-141's in the force would provide a 20 percent increase in our airlift capability in fiscal year 1969 over that now programmed for fiscal year 1968, and at about the same annual operating cost as the previously approved program.

The additional C-141's, however, would not be delivered until fiscal years 1968-70. To make up the temporary loss of capacity resulting from the cancellation of the C-130's and the phase-out of the C-135's, we propose to keep the C-124's in the active forces about two years longer than previously planned. This, in turn, creates a problem for the Air Force Reserve, as the C-124's were scheduled to replace about half of the present C-119 force. To alleviate this problem, we propose to delay the previously planned reduction of Reserve C-119's by about two years.

Finally, as I noted earlier, all of the C-123's now in the airlift forces will be transferred to the counterinsurgency forces (COIN) in fiscal year 1965, two years earlier than previously planned. The transfer of these aircraft will not appreciably reduce our airlift capacity.

As shown on Table 14, by the end of fiscal year 1970, the 30-day lift capability of the force we now propose would be [redacted] -- respectively, [redacted] higher than we actually had at the end of fiscal year 1961.

## 1. Airlift Aircraft Procurement

The revised airlift aircraft procurement program is shown on Table 15. The fiscal year 1964 procurement of C-130's has been reduced from [redacted], a reduction of [redacted] aircraft [redacted]. The saving of \$131 million is to be applied as follows: \$32 million for cost increases in the C-141 program; \$42 million for cost increases on the RF-4C; \$34 million for the one percent overall reduction imposed by the Congress in acting on our fiscal year 1964 budget request; and the remainder for a wide variety of cost increases in other aircraft programs.

The fiscal year 1965 budget request includes \$514 million for the procurement of 84 C-141's, the same number planned last year. The additional 139 C-141's (112 UE and 27 command support, training, and attrition) are added to the end of the procurement program, 66 more in fiscal year 1967 (raising the total to 84) and the balance of 73 in fiscal year 1968.

## 2. Future Airlift Aircraft

I stated last year, in connection with the problem of finding a replacement for the "outsize" cargo capability of the C-133, that we might soon have to undertake the development and procurement of a new large cargo transport. Despite the significant augmentation in cargo capability provided by the C-141, our latest studies show that about 25 percent of our

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peacetime airlift traffic consists of such items as radars, communications vans, aircraft wings, large Army vehicles, ICBM's and space equipment which are too large for the C-141 and must be transported by C-133's or C-124's. More importantly, a large proportion of our wartime cargo would also be outsize to the C-141; for example, over one-third of the equipment of an infantry division would be too large for this aircraft. Moreover, the new air assault division may pose additional outsize cargo problems with its large complement of helicopters and its need for ultra-rapid deployment.

The C-124's now average about 11-1/2 years of heavy service and are scheduled to be phased out of the active airlift force completely by the end of fiscal year 1969. By that time only 40 C-133's are expected to be available and these will have become very difficult to maintain because of age and structural fatigue problems. Hence, by the end of the decade, our airlift capability will be limited pretty much to what can be carried in C-130's and C-141's. While there are a number of partially effective solutions to the outsize cargo problem, such as dismantling large items, pre-positioning them, and redesigning them, each has its costs and disadvantages.

The capability to move outsize cargo would not, of itself, justify the cost of developing a new transport. However, preliminary design studies indicate that a large transport in the 600,000 lb. class (the C-141's maximum take-off weight will be about 316,000 lbs.) could not only carry all of the outsize items we are concerned with but would also be very economical to operate at full load for most types of military cargo. For example, in deploying Army forces, such an aircraft would be about three times as productive as the C-141, yet its operating costs would be only 50 percent greater. It would achieve these advantages chiefly because of a much better balance between maximum payloads and available space in the aircraft fuselage. Moreover, some of the proposed configurations would be able to use runways now considered suitable only for the light, twin engine C-123.

The economic operating advantages of such a transport, as compared with the C-141, suggest that if a sufficiently large unmet airlift requirement exists to permit amortization of development cost, that requirement ought to be met with the new transport. As I mentioned before, while we are studying the problem intensively, we are not now in a position to determine the exact extent to which future requirements will exceed our currently planned capability. Nevertheless, our analyses thus far indicate that there is still a substantial amount of airlift needed and that the potential gains from the new transport are sufficiently attractive and realizable to warrant an immediate and comprehensive study effort on all of the crucial aspects of the problem. We, therefore, plan to undertake a number of "in-house" studies, using the military departments, OSD staff offices, and the Weapons System Evaluation Group (WSEG). Other matters

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such as special design features, performance characteristics, etc., will be studied by selected aircraft manufacturers under contract to the Defense Department. With this information in hand, I should be able to recommend at this time next year whether we should commence a full-scale development program in fiscal year 1966 which would cost, eventually, between \$350 and \$500 million. The investment cost for a three-squadron force (48 UE aircraft) would amount to about \$1.2 to \$1.5 billion.

To finance the necessary studies, I propose to use about \$10 million in fiscal year 1964 from the Emergency Fund. If by September, it appears that full-scale development is warranted, it will become necessary to provide additional funds for design competition expenses. I have included \$7 million in the fiscal year 1965 budget request for this purpose.

If we were to decide to go ahead with development and procurement of a new large transport, we would most likely want to make some adjustments in the procurement and deployment schedule for the C-141 in the latter part of the period.

### 3. Reserve Component Airlift

In addition to the large airlift capacity being built into our active forces, we will continue to maintain and improve the airlift capability in the Air Force reserve components, as shown on Table 14. As additional C-124's become available for the Air Force Reserve, the number of C-119's will gradually be reduced. The airlift capability of the Air National Guard has already been significantly increased by the receipt of additional C-97's (converted KC-97's phased out of the active force) and C-121's.

By the end of fiscal year 1969, the Air Force reserve components will have a total of 828 aircraft of which 500 will have a long-range airlift capability. All of the reserve airlift aircraft are maintained in ready condition and are ready for deployment in 24 hours.

### 4. Civil Reserve Air Fleet (CRAF)

Finally, upon the declaration of a national emergency by the President or the Congress, the Defense Department could call upon some 255 commercial aircraft, about half of which are modern jets, in the Civil Reserve Air Fleet (CRAF). While the cargo-carrying capacity of these aircraft is limited by their configuration, their passenger-carrying capacity is very substantial. The CRAF force could be available within 48 hours after the declaration of a national emergency and could be counted upon for the movement of personnel, particularly those personnel brought in to utilize prepositioned equipment. CRAF could also be used for resupply purposes, where packaged high density items represent a large share of the load and would fill the gap on routine overseas runs left by MATS aircraft called away for other more urgent missions.

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### C. SEALIFT

As I noted earlier, our most recent studies of sealift requirements indicate the current combined military/civilian capabilities are generally adequate to our requirements. Accordingly, no important changes have been made in the sealift forces presented to the Committee last year. These forces are shown on Table 14.

#### 1. Troop Ships

Last year we decided to retain the 16 MSTS troop ships in the active fleet two years longer than previously planned, and to start phasing them out in fiscal year 1966, instead of 1964. We did this to provide some extra insurance during the period when our passenger airlift would still be in the buildup stage. I see no reason to alter that schedule now. However, during the coming months a number of recent studies dealing with the troop ship requirement and airlift/sealift generally, as well as the results of the exercises Big Lift and Quick Release, will be undergoing a thorough evaluation, both by my office and by the Joint Chiefs of Staff. These studies and analyses will provide a basis for a decision on the disposition of these troop ships in fiscal year 1966.

#### 2. Cargo Ships

Our main concern with respect to cargo sealift is not so much with the number of ships as with the qualitative characteristics of the small MSTS fleet of cargo ships and tankers. We did consider a new construction program for general purpose cargo ships in the fiscal year 1966-69 period, but the requirement for these ships is not urgent enough to warrant a decision at this time.

With respect to the Roll-on/Roll-off ships, three had been authorized through fiscal year 1963 and two are already in the active fleet. We proposed last year to construct one additional Roll-on/Roll-off ship in each fiscal year, 1964 through 1967, for a total of seven. The Congress eliminated the funds requested for the fiscal year 1964 ship, pending the completion and evaluation of tests involving the roll-on/roll-off concept as compared with conventional loading practices. These tests have now been completed and preliminary results support the roll-on/roll-off concept. I have therefore included \$19 million in the fiscal year 1965 budget for the construction of a roll-on/roll-off ship and have tentatively programmed one additional ship in fiscal year 1966, and two in fiscal year 1967.

We are also studying a new type of roll-on/roll-off ship which promises perhaps twice the capacity, additional speed, and lower procurement and operating costs. If our analyses over the next few months bear out the advantages of this new type, I will propose a change-over to the new design, beginning with the fiscal year 1965 ship. At that time I may also wish to propose a change in the total force objective.

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### 3. Tankers

In order to increase our tanker capacity, we propose the rehabilitation and lengthening of four MSTS tankers, two in fiscal year 1965 and two in 1966. These MSTS tankers are much smaller than their commercial counterparts and, hence, are uniquely suitable for operation in shallow ports and estuaries characteristic of many areas of the world. However, of the 25 tankers now in the active fleet, 19 were built during World War II and a beginning must be made on modernizing these ships so as to lengthen their service life and increase their efficiency.

Our increasing dependence on airlift will undoubtedly result in a requirement for greater POL storage capacity in forward areas and an increased requirement for tanker resupply. This will be particularly true in the Pacific area and at the enroute island bases. I have therefore directed that a study be made of our world-wide requirements for POL storage and tanker resupply in relation to our anticipated deployment requirements.

### 4. Forward Floating Depots

One of the major determinants of airlift/sealift requirements is the amount of equipment and supplies which can be feasibly maintained overseas, either in land-based or sea-based depots. There are, of course, many factors that must be taken into account in assessing the contribution that prepositioning can make to our "quick reaction" capability. Land-based prepositioning depots have certain inherent limitations: reloading facilities may be limited or political restrictions imposed by the host country may jeopardize the immediate availability of the stocks. Also, this type of prepositioning almost inevitably involves foreign exchange costs and thereby affects our balance of payments. Moreover, there is the absolute cost of maintaining the materiel overseas in a ready-to-use condition. In Southeast Asia, for example, this cost can run very high for certain types of equipment that are especially susceptible to deterioration in hot and humid climates.

For these reasons, we are continuing to test the so-called "floating depot" concept that I talked about last year. We now have three ships converted for this purpose on station at Subic Bay in the Philippines. These ships are temperature and humidity controlled and [redacted]. They can move quickly

[redacted] to any part of the Far East in a few days, and troops can be airlifted to join them well within the time the ships require to get to their destination. The upcoming troop deployment exercises to Southeast Asia will give us an opportunity to test operationally the forward floating base concept, e.g., reaction time, condition of material, etc. If these tests are successful, we will propose a major expansion in the forward floating base program for fiscal year 1966.

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D. FINANCIAL SUMMARY

The Airlift and Sealift Program I have outlined will require Total Obligational Authority of \$1.4 billion in fiscal year 1965. A comparison with prior fiscal years is shown below:

	(\$ Billions, Fiscal Year)				
	<u>1962</u> <u>Orig.</u>	<u>1962</u> <u>Final</u>	<u>1963</u> <u>Actual</u>	<u>1964</u> <u>Est.</u>	<u>1965</u> <u>Proposed</u>
Total Obligational Authority	.9	1.2	1.4	1.3	1.4

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## VI. RESERVE AND NATIONAL GUARD FORCES

### A. GENERAL

In the preceding sections of this statement I have discussed most of the important issues involved in the Reserve and National Guard Program. In this section I would like to summarize the numbers of men on paid status and the costs of the program. The numbers of Reserve and National Guard personnel in regular paid training for fiscal years 1961, 1962, 1963, 1964, and 1965, are shown on Table 16.

As shown at the bottom of the Table, we have budgeted for 1,065,400 Reserve and National Guard personnel on paid status at the end of 1965. This compares with 1,050,400 at end 1964 and 964,400 at end 1963. Of these numbers, 987,500 personnel would be in regular paid drill training status at the end of 1965, compared with 947,500 at end 1964 and 896,500 at the end of 1963.

### B. ARMY RESERVE

We have again programmed a total of 300,000 Army reservists on paid drill training for end 1964, but it now appears that the Army Reserve will end the current fiscal year with a participating paid drill strength of about 264,000. The shortfall below the programmed strength is the result primarily of the exceptionally large losses we have been experiencing over the past two years. In order to offset these losses we have budgeted for an increase in six-months trainees to 61,800 in fiscal year 1965 compared with 48,000 in the current fiscal year and 28,900 in fiscal year 1963. For end 1965, we plan again to program 300,000 on paid drill status, but we have budgeted for a participating paid drill end strength of 285,000, the number we estimate can be actually attained. The budget also provides two weeks annual active duty training for 58,400 reservists, compared with about 80,400 in the current year and 47,200 in 1962.

### C. ARMY NATIONAL GUARD

In the case of the Army National Guard, we have programmed a total paid drill training strength of 400,000 for the end of the current year. We currently estimate a participating paid drill strength of 376,000 at end 1964, compared with 360,700 at end 1963. The exceptionally large turnover of personnel is the principal reason for the shortfall. As in the case of the Reserve, the Guard's fiscal year 1965 six-months training program would be raised to a level of 86,400, compared with 81,500 in the current year and 59,200 in fiscal year 1963. We plan, again, to program 400,000 for end 1965, but have budgeted for a participating paid drill training end strength

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of 395,000, the number we estimate can be attained by that time.

D. NAVAL RESERVE

For the Naval Reserve we have programed a total of 126,000 men on paid drill training status for end 1965, the same number estimated for the end of the current fiscal year. The comparable fiscal year 1963 strength was 119,600. In addition, about 8,600 Naval Reserve officers and enlisted men are expected to perform active duty training in fiscal year 1965, compared with 10,100 in the current year and 9,800 in fiscal year 1963. The difference of 1,500 (all enlisted men) between fiscal year 1965 and the current year is based on a reduced estimate of the number expected to participate in this phase of the program.

E. MARINE CORPS RESERVE

The 1965 budget provides regular paid drill training for 45,500 Marine Corps reservists, the same number programed for 1964. In addition 3,400 reservists will be provided two weeks or thirty days training, the same as the current year's program.

F. AIR FORCE RESERVE

For the Air Force Reserve, the 1965 budget provides a total of 61,000 on paid drill training status, the same number estimated for the end of the current year. An additional 7,500 reservists will receive two weeks active duty training, compared with about 9,000 planned for the current year. We are now restudying the entire Air Force Reserve program for recovery groups and squadrons with a view to reorganizing the present structure in order to fit it better to our changing requirements. Consequently, until our plans are firm, we are proposing only a nominal increase in the strength of these units in fiscal year 1965 (from about 13,000 at the beginning of the year to 14,900 at the end), to be achieved within the 61,000 end strengths.

G. AIR NATIONAL GUARD

The budget provides paid drill training for 75,000 Air National Guard personnel, the same as provided for in the current year and about 700 more than the number receiving paid drill training at the end of fiscal year 1963.

H. RESERVE OFFICER PARTICIPATION IN THE CIVIL DEFENSE PROGRAM

I described to you last year our program to encourage certain reserve component officers to volunteer as Civil Defense instructors and administrators on a non-pay basis. These officers, who must have

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discharged their obligated service, do receive retirement point credit for stated periods of service with regional, state, and local Civil Defense activities. At present, there are about 4,500 officers participating in this program.

#### I. OFFICERS EDUCATION PROGRAM (ROTC)

A bill to reorganize the Reserve Officer Training Corps program of the three military departments is now before the Congress and pending final action on that legislation, the fiscal year 1965 program proposed in the budget request is essentially the same as the current year.

In the junior (high school) division of the Army program, we expect a training load of about 67,000, about 1,000 more than the current year. In the Army senior (college) division an estimated 158,000 are expected to participate, about 5,000 more than the current year. Production of commissioned officers, however, is expected to remain stable at about 11,800 per year.

Participation in the Air Force senior division program in fiscal year 1965 is expected to be about 101,000, about 3,000 more than the current year. Production of officers will rise by about 1,000 to approximately 4,600. In fiscal year 1965, both the Navy's contract and regular ROTC programs are expected to remain at the current year levels of about 5,300 and 5,500 respectively. Total number of officers to be commissioned is estimated at about 2,000, about 300 more than the current year.

The strengths of the reserve officer candidate programs of Navy and Marine Corps will be about 2,800, about 1,100 fewer than the current year. Production of commissioned officers is estimated at about 1,000, about 200 fewer than the current year.

#### J. FINANCIAL SUMMARY

The Reserve and National Guard Forces I have outlined will require Total Obligational Authority of \$2.0 billion for fiscal year 1965. A comparison with prior years is shown below:

	(\$ Billions, Fiscal Year)				
	<u>1962 Original</u>	<u>1962 Final</u>	<u>1963 Actual</u>	<u>1964 Estimated</u>	<u>1965 Proposed</u>
Total Obligational Authority	1.7	1.8	1.8	2.0	2.0

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## VII. RESEARCH AND DEVELOPMENT

This program includes all the research and development effort not directly identified with elements of other programs. In my discussion of the mission-oriented programs, Strategic Retaliatory Forces, General Purpose Forces, etc., I have already touched on a number of R&D projects. At this point I would like to round out in a more systematic fashion the content of the Research and Development Program as a whole.

Last year I described the steps being taken to improve the management of the Defense Department's Research and Development Program. This program has grown rapidly during the last few years and new techniques for its management have had to be developed. The R&D Program is now divided into six broad categories: Research; Exploratory Development; Advanced Development; Engineering Development; Management and Support; and Operational Systems Development, the research and development costs of systems which have been approved for production and deployment.

The first four broad categories of the R&D Program reflect, in a very general sense, phases of the evolutionary process by which ideas are eventually translated into useful military hardware. Each category or phase requires a somewhat different management technique. Thus, in the first two phases, Research and Exploratory Development, we do not as a general rule attempt to prescribe goals, milestones and time schedules. Projects included in these categories are usually controlled on a "level of effort" basis.

As ideas progress to the development of hardware for experimental tests, i.e., the Advanced Development stage, we begin to identify each project with a specific military application or technique, and we begin to question in depth its potential military utility. During this phase we also begin to explore the costs of the most likely applications in order to determine whether the potential operational benefit would be worth the cost of development, production, and deployment.

In the fourth stage, where a system is to be engineered for service use and for operational employment, large commitments of resources must be made to single projects. Accordingly, before full-scale development is initiated, the specific operational requirements and the cost effectiveness of the system must be confirmed, and goals, milestones and time schedules must be established. It is at this point that we require what we call a "project definition phase" for all large endeavors. And, it is in this phase that all the aspects of a development are tied together into a single plan which defines, for Government and industry alike, what is wanted, how it is to be designed and built, how it will be used, what it will cost, and what systems and techniques will be used to manage the program.

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Thus, the first three categories provide the "technical building blocks" that we need for the fourth or fifth category, engineering or operational systems development. We realize, of course, that it is impossible to "plan" technological evolution. We know that some of our research and engineering efforts in these earlier stages will not lead to any useful products and we know that we will encounter some needs which have not been anticipated. But unless the basic "building blocks" are provided in a timely manner, our efforts to define and manage the large-scale system developments will suffer, and we will be inviting the costly and inefficient crash programs and telescoped development-production efforts we wish to avoid. Moreover, by planning the "non-system" part of our Defense research and engineering effort without trying to tie it to a particular systems development, we should be able to achieve a greater degree of standardization which, through repeated use of the same or similar components, should increase reliability, reduce costs and help to simplify the logistics problem.

Having restructured the R&D program and developed the techniques required to manage it efficiently, we addressed ourselves this year to a comprehensive review of the on-going program. In a research and development effort of this sort, exploring, as it should, new frontiers of knowledge and new avenues of technology, some false starts must be expected. Furthermore, military requirements are always changing and new technological and scientific discoveries are continually being made. Thus, there will always be some projects which appeared to be sound and useful - three, two, or even one year ago - but which, today, are no longer worth their cost. These projects must be culled out of the program promptly if we are to make the most effective use of the resources - men, money, and facilities - devoted to research and development. To do this requires a very thorough and comprehensive review of a great number of individual efforts, many of which are interrelated.

Such a review was completed last year and a sizeable number of R&D projects have been eliminated from the program or completely reoriented. The net effect has been that for all RDT&E appropriations, our fiscal year 1965 budget request is \$6,722 million, \$540 million less than the amount requested for fiscal year 1964, and \$227 million less than the amount appropriated by the Congress for fiscal year 1964.

Although I cannot promise that there will be no further change in the detail of the Research and Development Program over the next year and a half, I can assure you that the total amounts requested are austere and that an extensive job of pruning has been done. I am, of course, fully aware of the growing congressional concern with Government R&D programs generally, and I welcome a thorough analysis of our work. But I do want to caution that "across-the-board" cuts could be very damaging to our future security.

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We expect you to continue to scrutinize our budget proposals very closely and we are prepared to explain them in any level of detail you may desire. We have taken into account the fact that the Research and Development Program has increased relatively rapidly in the last few years and on the basis of our detailed review we believe that some reduction from 1964 is warranted - but not a sharp step downward. The near revolutionary progress in science and technology has been opening up an ever-increasing number of technological choices. While we need not try all of them, we certainly must continue to explore at least the most promising prospects, and this means the continuous initiation of new research and development projects, as well as the continued support of promising lines of investigation started in previous years.

We must be certain that we are always covering the most critical areas of new technology. The time it is taking us to catch up with the Soviet Union in the development of large space boosters is but one example of what can happen when we fall behind in any major area. Fortunately, we are ahead of our competitors in the fields most important for our security, but we will be able to stay ahead only if we continue a broad, well-balanced and vigorous research and development effort, an effort which is sufficiently comprehensive and challenging to retain the interest and support of the most capable technical talent available.

Before I turn to the specifics of the Research and Development Program, there are two general areas which might usefully be discussed as entities, rather than in terms of the separate projects which they comprise. These are Nuclear Testing and Test Detection, and Space Development Projects.

#### A. NUCLEAR TESTING AND TEST DETECTION

In testifying on the test ban treaty before the Senate Armed Services Committee, the Department of Defense committed itself to four specific safeguards:

1. The conduct of comprehensive, aggressive and continuing underground nuclear test programs designed to add to our knowledge and to improve our weapons in all areas of significance to our military posture for the future.
2. The maintenance of modern nuclear laboratory facilities and programs in theoretical and exploratory nuclear technology which will attract, retain, and ensure the continued application of our human scientific resources to these programs on which continued progress in nuclear technology depends.
3. The maintenance of the facilities and resources necessary to institute promptly nuclear tests in the atmosphere should they be deemed essential to our national security or should the treaty or any of its terms be abrogated by the Soviet Union.

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4. The improvement of our capability, within feasible and practical limits, to monitor the terms of the treaty, to detect violations, and to maintain our knowledge of Sino-Soviet nuclear activity, capabilities, and achievements.

The Defense Department's portion of this joint undertaking with the Atomic Energy Commission is shown in Table 17. For fiscal year 1965 we are budgeting a total of \$279.2 million for our share of this program, as compared with \$223.6 million in fiscal year 1964.

In support of the first safeguard, underground testing, the Atomic Energy Commission is carrying out weapons development tests to meet the needs of the Defense Department for new and improved weapons. The Defense Department, which has the responsibility for weapons effects tests, is preparing for a series of twelve tests to be conducted at the Nevada Test Site, [redacted]

[redacted]  
The fiscal year 1965 Defense budget includes about \$23 million for underground testing.

In support of the second safeguard, maintenance of laboratory facilities and programs, our 1965 budget includes about \$53 million for nuclear weapons effects research and the Department of Defense's share of the cost of research, development, test, and evaluation associated with nuclear weapons development. The "effects" research program includes laboratory and theoretical investigation of air blast and ground shock, water blast and shock effects, thermal and nuclear radiation, electromagnetic phenomena and biomedical effects. The Department of Defense's portion of the weapons development effort includes work on fuzing and firing systems, retardation systems, ballistic cases, aircraft compatibility testing and vulnerability tests.

With regard to the third safeguard, maintenance of a standby atmospheric test capability, we have budgeted approximately \$77 million in fiscal year 1965. Improvement of the test facility at Johnston Island was, for the most part, financed in fiscal years 1963-64 at a cost of about \$37 million. Other preparations for atmospheric testing will include: research, development and procurement of long leadtime instrumentation and instrument carriers; the maintenance of all this equipment; and the support of a joint task force in-being. [redacted] we should have a capability to begin atmospheric and underwater effects tests within six months of notice,

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stockpile proof tests within about two months, operational systems tests within about two to three months and weapons development tests within about three months.

In support of the fourth safeguard, the monitoring of Sino-Soviet actions, we have included about \$127 million in the 1965 budget compared with \$101 million in 1964. More than half of the increase is for the augmentation of the Atomic Energy Detection System (AEDS). About \$34 million has already been invested in this system and operating costs currently run about \$29 million per year. We now propose to invest another \$100 million during the fiscal year 1964-69 period, about \$28 million in 1965. During the same period, the annual operating cost of the AEDS will increase to about \$40 million. To continue development of seismic and other ground-based detection systems, and particularly to develop further a satellite-based system, we propose that the VELA program be increased to \$61 million in fiscal year 1965 as compared with \$51 million in fiscal year 1964. This augmented program would provide for the launching of another experimental detection satellite in addition to the two launched this fiscal year.

#### B. SPACE DEVELOPMENT PROJECTS

Because of the importance of the Defense Department's space program and its relation to the national space effort, I believe it would be useful at this point to discuss that program as a whole. The program proposed for fiscal year 1965 is summarized on Table 18. Certain projects, particularly those in the first two categories, Spacecraft Mission Projects and Vehicle, Engine, and Component Developments, are clearly identifiable as part of this program. Other activities, particularly ground support, supporting research and development, and general support, must be prorated to the space program since they also contribute to other Defense programs. In total, we estimate that about \$1,474 million of our fiscal year 1965 budget request is for space, about \$140 million less than fiscal year 1964, but almost double the fiscal year 1961 level.

Last year I told the Committee that we considered it essential that the Defense Department's space program meet two fundamental criteria. First, it must mesh with the efforts of the National Aeronautics and Space Administration (NASA) in all vital areas; that is, the Defense and NASA programs, taken together, must constitute an integrated national program. And second, projects supported by the Defense Department must hold the distinct promise of enhancing our military power and effectiveness.

Speaking broadly, approximately half of our space effort is directly related to relatively well recognized and understood military requirements such as satellite communications and navigation systems, [REDACTED] etc. The balance of our effort, however, is aimed at creating a broad base of new technology, devices, and in some cases, systems for possible future application. Space technology is still

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very new and its implications, especially for the military mission, can not be fully foreseen at this time. This is particularly true with regard to the potentials of a "man-in-space". That is why we have been pursuing, up to now, a relatively wide range of efforts related to space technology. But the time has come when, in our judgment, these efforts should be more sharply focused on those areas which hold the greatest promise of military utility.

#### 1. Spacecraft Mission Projects

As you know, I had been concerned for some time about the role of the DYNASOAR (X-20) program in our overall space effort. The principal objective of this program was to explore the feasibility and practical value of pilot-controlled, maneuverable re-entry and recovery from orbit at a time and place of the pilot's own choosing.

The X-20 was not contemplated as a weapon system or even as a prototype of a weapon system. Its distinguishing feature, as compared with MERCURY and GEMINI, was to be its substantial lifting maneuver capability, which would have enabled it to operate in the Mach 5 to Mach 25 regime and to de-orbit and land at any number of points within a very large area. But, because of its very limited flight endurance and payload capacity (75 cubic feet/1,000 lbs.), DYNASOAR's value in exploring man's military usefulness in space would have been relatively small.

Yet, from the military point of view, the determination of man's ability to perform useful military missions in space is the more immediate problem, and for this purpose DYNASOAR was so limited as to make it a very poor choice. The maneuverability feature of DYNASOAR, while of great interest, is not needed now, and will not be needed until man's unique capabilities in space have not only been demonstrated, but are actually being used in a semi-routine manner. And, even when that point is reached, it is highly questionable that a vehicle of the DYNASOAR type would be desired. If it should develop that there is indeed a substantial military role for "man-in-space," we would need a much more capable vehicle than DYNASOAR (which as conceived could carry only one passenger) to get them there, permit them to operate there effectively, and then bring them back when their mission is accomplished.

With regard to the aerodynamic exploration of the Mach 5-Mach 25 flight regime, the desired technical data may be obtained more economically, and for a wider variety of materiels and conditions, through the use of small unmanned vehicles such as "ASSET". This is one of several vehicles to be included in our augmented Re-entry and Recovery Program, which, as shown in the second section of Table 18, would be expanded by over 50 percent in fiscal year 1965, as compared with the two preceding years.

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Our most immediate problem, therefore, is to develop a space vehicle which will enable us to explore the contribution which man might make to military space operations. We began to move in this direction early last year when we reached agreement with NASA to use its GEMINI program for Defense Department space experiments. A joint GEMINI Program Planning Board was formed to administer that agreement, and last June I approved a program of "piggy back" Defense experiments on NASA flights, along the lines recommended by the Board. An Air Force field office has been established at the Manned Spacecraft Center in Houston, Texas, to manage the integration of these experiments with the NASA program. The active Defense participation in the GEMINI Program has already facilitated the flow of information between the two agencies. Furthermore, it ensures the full use of experience gained in manned space flight activities and minimizes any possibility of duplication within the national space program.

Now we propose to take a much more important step in that direction with the initiation of an entirely new project, the Manned Orbiting Laboratory (MOL). This system will be made up of a modified GEMINI capsule (GEMINI B) coupled to a pressurized cylinder equipped as an orbiting laboratory. The MOL would be launched by a TITAN IIIC, with the GEMINI B capsule on top, the pressurized cylinder next, and the TITAN IIIC at the base. The two astronauts will be seated in the GEMINI capsule during launch and then move into the pressurized cylinder, or laboratory, once the vehicle is in orbit. For the return to earth, the astronauts would re-enter the GEMINI capsule, detach the capsule from the pressurized cylinder, fire the retro- rockets and de-orbit back to earth, leaving the laboratory in orbit.

The pressurized cylinder, or laboratory, would be large enough to permit the installation of a considerable amount of military equipment and provide sufficient room for the astronauts to move around and operate, adjust, or repair equipment without the use of special space suits. Thus, the MOL will permit man to function both as a test pilot and a scientific experimenter in space. It will enable man to develop, test, and evaluate both the equipment and himself and their combined ability to discriminate, evaluate, filter, and dispose of data. These are the functions required for the possible missions contemplated for man, such as space and earth observation, satellite inspection, maintenance and repair and others.

In accordance with our policy of conducting an integrated national space program, NASA may also use the MOL for whatever experiments bearing on its own programs can best be done in MOL. The joint planning for NASA's use of MOL will follow the same line as that established for Defense's use of the present GEMINI program, but in reverse. The Manned Orbital Laboratory will be under the management of the Air Force with extensive technical support provided by NASA. NASA control facilities and NASA/DoD tracking facilities, which have been set up for the MERCURY, GEMINI and other space programs, will be utilized wherever possible. Actual design of the system

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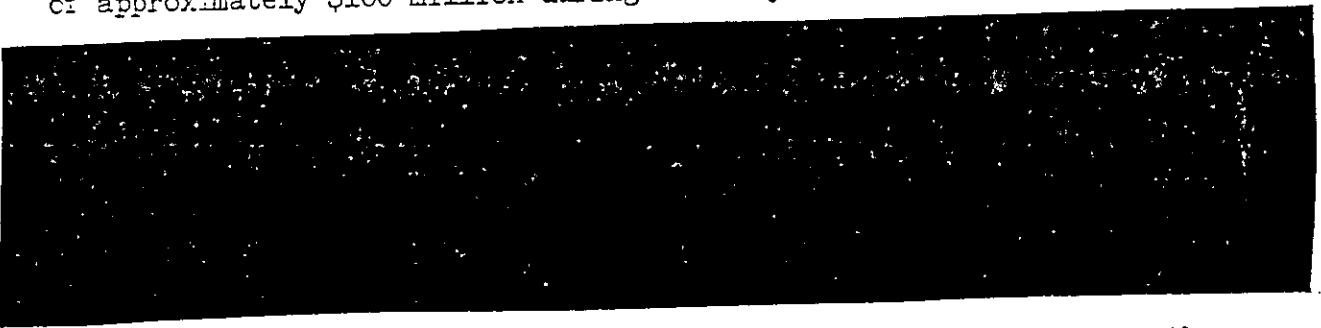
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and experiments in orbit will be based on studies now in progress as well as a carefully planned program of experiments using ground and airborne simulation and experience derived from the orbiting of equipment in the present GEMINI vehicle.

Detailed studies of MOL have been underway since last September when I signed an agreement with Mr. Webb, the Administrator of NASA, to explore the feasibility of a new national orbital space station. We now plan to intensify this effort during the balance of the current fiscal year, and I am allocating \$10 million from the fiscal year 1964 DoD Emergency Fund for this purpose. As shown on Table 18, another \$75 million has been included in the fiscal year 1965 budget to continue this work. First flight in the manned configuration is tentatively planned for late in calendar year 1967 or early 1968. Up to six flights could follow in the succeeding 18 months.

We also plan, as part of our overall "man-in-space" program, to continue our participation in the NASA GEMINI program, both for the basic knowledge and experience we will gain and for the contribution it should be able to make to the MOL program. For this purpose \$1.4 million was reprogramed in fiscal year 1963 and an additional \$13.6 million was reprogramed in fiscal year 1964. For fiscal year 1965, \$6 million more is included in the pending request.

As part of the decision to initiate the new MOL program, action has been taken to terminate DYNASOAR (X-20). We estimate that around \$70 million will be required in fiscal year 1964 to cover costs already incurred and for termination charges, raising the total spent on this program since its inception to about \$400 million. The balance of the \$125 million appropriated by the Congress for DYNASOAR in fiscal year 1964 will be applied to the B-70 program in accordance with the language of the appropriation, "R&D, Air Force", which provides "that of the funds available for obligation in this appropriation account, \$125,000,000 shall be available only for the DYNASOAR or Mach 3 aircraft program". The net effect of the cancellation of DYNASOAR and the addition of MOL will be an expenditure saving of approximately \$100 million during fiscal years 1964 and 1965.



As I informed the Committee last year, the responsibility for the next item, the Communications Satellite Program, has been reallocated within the Department of Defense. The Department of the Army retains

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responsibility for the development of the ground environment system. The Department of the Air Force is responsible for the development, production, and launching of all space systems, and the Defense Communications Agency, for integrating the space and ground elements of the Communications Satellite System into the Defense Communications System.

Last year we had planned to develop a medium altitude, random orbit system which is well within the demonstrated state of the art and which could become operational at a relatively early date. This system would have involved 20 to 30 satellites randomly distributed in several orbits at approximately 6,000 nautical mile altitudes. The first R&D launch was planned during the second half of calendar year 1964 and a significant operational capability for late in 1965.

There is a clear requirement for a military satellite communications capability, particularly to provide an effective means of communications with remote areas. We believe it may be possible for the new Communications Satellite Corporation to provide this capability through the system which it is planning to build and operate. The idea is being actively explored. Major problems related to global service, security of the military circuits, and location and control of the ground stations have yet to be resolved. However, even if these problems cannot be worked out satisfactorily, close cooperation between the Defense Department and the Corporation might still make possible the joint development and production of the satellites, boosters, and other elements of the system.

We intend to continue the Department of Defense medium altitude communications satellite program in the research and development phase; but no operational capability will be initiated until we have had an opportunity to determine to what extent it is possible to integrate our plans with those of the Communications Satellite Corporation. The \$44.7 million requested for fiscal year 1965 would permit the completion of the R&D evaluation of system feasibility, i.e., the feasibility of the satellite communications systems as a whole and its compatibility with the Defense Communications System.

The next item on Table 18 is the nuclear test detection satellite, which is part of the VELA program, a joint AEC/DOD research and development effort concerned with the detection of nuclear tests. The satellite portion of the program is designed to provide data on the operation of nuclear test detection sensors in space and in the natural radiation environment in which the sensors must function. Two identical experimental satellites were launched in tandem last fall and placed into virtually identical near-circular orbits about 100,000 miles apart. Large amounts of data on radiation background have already been received and will be used to design improved world-wide test detection systems for the future. Additional launches, each with two satellites, are scheduled. About \$26 million is included in the fiscal year 1965 budget to continue this program.

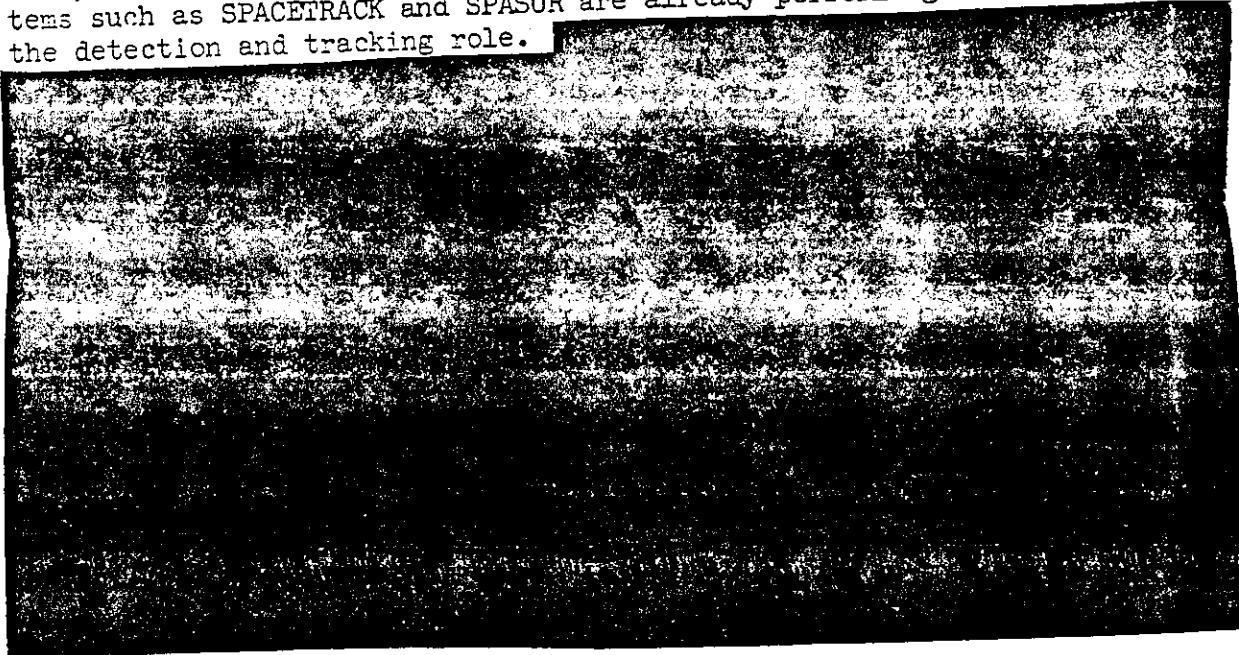
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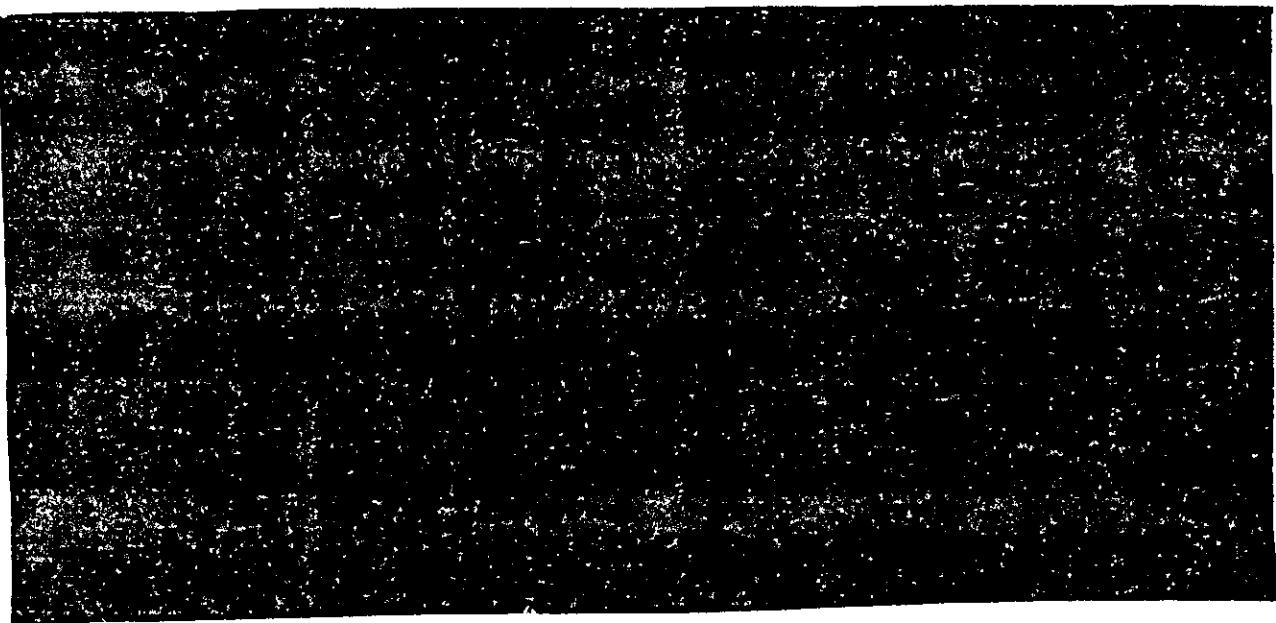
About \$25 million (\$7 million for RDT&E) is included in the fiscal year 1965 budget for the continued development and operation of the Transit Navigational Satellite System, which is designed to provide, under all weather conditions, navigational fixes at any point on the earth's surface. Although primarily [redacted] the system [redacted] and may even prove suitable for non-military use.

The Satellite Inspector Program, for which \$2 million is requested in the fiscal year 1965 budget, has been completely reoriented within the last year. It was originally designed to provide a capability to rendezvous with and inspect potentially hostile orbiting objects with various sensors and transmit the data to ground stations. This and other "in-space" techniques thus far suggested look extremely expensive, if not technically impractical. Accordingly, current efforts in this area are now being limited to the development of the necessary fundamental technologies for co-orbital interception and inspection. Some of the experiments planned for incorporation in the GEMINI program will support this effort and the rendezvous portion of the GEMINI program if and when undertaken will, of course, also have application to this problem.

There is a good possibility that we may be able to develop ground-based systems which can perform the identification and classification function, and we are funding exploratory work in this area. Ground-based systems such as SPACETRACK and SPASUR are already performing excellently in the detection and tracking role.



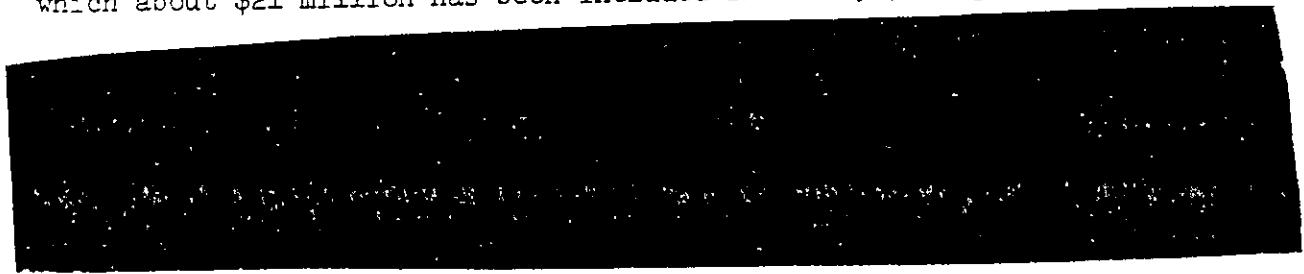
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## 2. Vehicle, Engine and Component Developments

The largest item in the second category, Vehicle, Engine and Component Developments, is \$205.6 million for the TITAN III, which I described to the Committee in considerable detail last year. This vehicle is designed to serve NASA as well as Defense Department purposes and is planned as a standardized launch vehicle for a wide range of manned and unmanned missions, including the Manned Orbital Laboratory which I described in the previous section. I pointed out last year that the TITAN III is justified primarily on a cost-saving program and that its continued development would depend upon achievement of the cost objective, then estimated between \$800 and \$900 million. It now appears that the cost of the development program will be about \$810 million. The amount requested for 1965 would leave about \$30 million to be financed in fiscal year 1966. TITAN III should pay for itself in a lower "cost per launch" over its expected operational life and, in addition, provide us with a very versatile booster of great importance to our future space capability.

I have already discussed the next item, Re-entry and Recovery, for which about \$21 million has been included in the 1965 budget.



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The next project, Solid Propellant Motor Development, for which \$12 million is requested in 1965, is designed to provide the technological base for the accelerated development of large solid propellant motors. This project is still being restricted to the development of the basic technological building blocks and is another one of the joint DoD/NASA efforts designed to meet the potential needs of the national space program. Defense is managing the overall program on behalf of both agencies. Since we do not envisage any potential military requirement for a motor larger than 156 inches, DoD will finance the \$12 million for fiscal year 1965 for the 156-inch program, and NASA has agreed to fund the 260-inch motor project.

Liquid Rocket Engine Development, for which we are requesting \$10 million in fiscal year 1965, includes three projects. The first, for which \$6.5 million is requested, is concerned with testing new concepts in liquid rocket component technology. In the second, \$2.5 million would be allocated to a program to define the design criteria and performance parameters for a new high energy upper stage. The remaining \$1.0 million would provide for ground testing of advanced propulsion concepts which would be applicable to the development and design of a space maneuvering propulsion system.

### 3. Other Defense Activities Supporting the Space Program

The Ground Support category, shown on Table 18, includes the pro-rated cost of the missile ranges and test instrumentation, as well as the satellite detection and tracking systems. The last two categories shown on the Table are self-explanatory.

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I would now like to turn to the details of the Research and Development Program for fiscal year 1965, which are summarized in Table 19.

#### C. RESEARCH

This category may be thought of as the realm of ideas and theory from which advanced devices and inventions eventually emerge. As used here, the Research category includes both the basic and some applied research directed toward the expansion of knowledge in such fields as the physical and environmental sciences, mathematics, psychology, sociology, biology, and medical sciences, as well as "in-house" laboratory independent research. As shown on Table 19, \$376 million is included in the fiscal year 1965 program for research, compared with \$337 million in fiscal year 1964, \$316 million in fiscal year 1963 and \$295 million for fiscal year 1962. This is an average annual increase of about 8 percent from fiscal year 1962 through fiscal year 1965. We estimate that, on the average, research costs have been increasing at the rate of about 5 percent per year. Thus, the amount requested for fiscal year 1965 would provide a small increase in the level of the research effort for each of the Services and for ARPA.

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The importance of research to our future military strength cannot be overstated. Many of the basic breakthroughs in military technology originated in laboratories. A large share of these funds are used to support basic and applied research in our universities. We consider it extremely important that our vital contacts with the creative research people in these institutions be continued. These are the people who in the past have been responsible for some of the most important technological improvements in the equipment now used by our military forces, and we should not deprive our national defense of the benefits of their creativity.

D. EXPLORATORY DEVELOPMENTS

This category consists of activities directed toward the solution of specific military problems short of the development of hardware for experimental or operational testing, ranging from fairly fundamental efforts to sophisticated "breadboard" hardware. Along with basic research, exploratory development forms the pool of technical knowledge from which future weapon systems will be devised and designed. A total of \$1,126 million for exploratory developments is included in the fiscal year 1965 program for the three military departments and the Advanced Research Projects Agency (ARPA), as shown on Table 19. This amount represents a reduction of \$3 million below that provided for fiscal year 1964.

I am convinced that substantial increases in the effectiveness of the Exploratory Development Program are possible. During the coming year we intend to seek out and identify those management conditions which have in the past proven to be highly productive of useful military results. We then intend to initiate new policies which will make these favorable conditions uniform throughout the Defense Department in the hope that this will permit a greater return for each dollar spent for exploratory development. For this reason, I am reducing exploratory development funding below that of fiscal year 1964.

1. Army

The Army's exploratory development effort provides for studies and analyses and fabrication, test, and evaluation of various components to establish their feasibility, practicability and relative advantages for use in future major development programs. This effort includes: new and improved propulsion systems for Army aircraft; design studies for greatly improved night viewing equipment; applied research in rocket propellants; new, lighter and more reliable electronic fuzes [redacted]

[redacted] improved designs and materials for small arms and armor defeating projectiles; applied research directed toward improved surface mobility, particularly in remote areas; mine warfare and barrier research; and mapping and geodetic research directed toward overcoming the limitations of current equipment and techniques with respect to speed and extend of area covered.

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2. Navy

The Navy's exploratory development effort is planned to produce improved "know-how" for the performance of all important naval functions. Included are the detection and localization of underwater, surface, and air targets; environmental surveillance with emphasis on the air-ocean interface; navigation; command-control; weaponry; ship and aircraft construction; and personnel and logistics.

The overall program on surveillance and command-control includes work on radar, ASW detection devices, data correlation techniques, navigation devices, communications, etc., for both ships and aircraft. In the field of ordnance, emphasis will be placed on non-nuclear air launch systems. Missile propellants, guidance systems and countermeasures will also be studied. Several projects involve advanced aircraft concepts, with emphasis on simplicity, endurance and low-speed characteristics. Work related to ships and submarines will concentrate on hull structures, integrated controls, and fatigue characteristics of deep-diving submarines, as well as advanced propulsion systems and measures to reduce underwater noise levels. About one-third of the \$337 million requested for the Navy in fiscal year 1965 will be devoted to problems directly related to ASW.

3. Air Force

About one-fourth of the \$308 million requested for the Air Force's 1965 exploratory development program will be devoted to space or space-related subjects. Included are studies, experimentation and component developments in such broad fields as guidance, flight control, propulsion, life sciences, surveillance and electromagnetic techniques.

In other areas, emphasis will be given to improving technology related to advanced tactical and strategic missiles, new propulsion cycles for hypersonic manned systems, V/STOL aircraft, the feasibility of laminar flow control in supersonic flight, new materials and structural concepts, technology related to reconnaissance, communications, command and control, intelligence techniques, computer and data processing, electromagnetic warfare and advanced weapons.

4. Advanced Research Projects Agency (ARPA)

A total of \$238 million is included in the 1965 program for ARPA's exploratory development projects, compared with \$237 million provided in 1964 and \$224 million in 1963.

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a. Project DEFENDER

We have included \$128 million for Project DEFENDER, which is concerned with the development of the scientific and technical knowledge needed for the design of U.S. defenses against ICBM's and IRBM's and for the assessment of the ability of U.S. ballistic missile systems to penetrate Soviet defenses. The project involves the making of precise measurements of ballistic missile flight phenomena which are of importance to the operation of a ballistic missile defense, the development and application of new ballistic missile defense techniques and the study of advanced defense system concepts. About half of the amount requested for DEFENDER will be devoted to the study of missile re-entry phenomena, including full-scale experiments in the Pacific. This work will be particularly helpful in defining the Army's NIKE-X development program. It will also be important for the Air Force and Navy programs concerned with the development of penetration aids for our strategic retaliatory missiles.

b. Project VELA

As I noted earlier, \$61 million has been included in the fiscal year 1965 budget to continue work on Project VELA, \$10 million more than the amount provided for fiscal year 1964. The objective of this project is to obtain an improved capability for detection of nuclear explosions both underground and at high altitudes. I have already discussed the detection of nuclear tests in the atmosphere, in connection with the Space Program. The underground test detection program involves monitoring and evaluating data from nuclear and chemical explosions as well as associated research in seismology and propagation phenomena in order to develop improved nuclear detection techniques.

c. Project AGILE

This project is designed to provide research and development support for remote area conflict problems with primary emphasis on requirements of indigenous forces in guerrilla warfare situations. The technological problems involved in this type of warfare include the requirement for greatly improved communications and surveillance, and new methods of achieving mobility and logistics support, as well as significant advancements in firepower. Up to now Project AGILE has been oriented to Southeast Asia, and ARPA centers have been established in Bangkok and Saigon. This effort is now being gradually extended to other areas of the world. In view of the importance of this project, \$30 million is being recommended for fiscal year 1965, compared with \$11 million in 1962, \$19 million in 1963, and \$24 million in the current fiscal year. Counterinsurgency warfare presents the kinds of problems which require new ideas and concepts and we are making a major effort to enlist the support of the U.S. scientific research and development community in an effort to find the right solutions.

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#### E. ADVANCED DEVELOPMENTS

This category includes projects which have advanced to a point where the development of experimental hardware for technical or operational testing is required, prior to the determination of whether the items should be designed or engineered for eventual service use.

We do not require that a particular and immediately specifiable military requirement exist for each of these projects, but rather, the reasonable expectation that the engineering knowledge which we are buying will be applicable to a specific problem at a foreseeable time somewhere in the Defense program.

##### 1. Army

Tri-Service V/STOL aircraft: The \$11 million shown on Table 19 for the Army for this project represents approximately one-third of the total amount of funds we plan to devote to it during fiscal year 1965. The balance is shown under the Navy and Air Force headings, bringing the total to \$39 million, compared with \$33 million in 1964 and \$36 million in 1963.

The purpose of this joint program is to develop experimental prototype vertical or short take-off and landing aircraft suitable for operational testing by the three Services. The V/STOL will provide the vertical take-off and landing features of a helicopter, but also permit a much greater speed, on the order of 250 knots or more, in level flight.

There are actually three distinct projects under this program:

- (a) XC-142A - The aircraft receiving primary emphasis in the Tri-Service V/STOL program is a large prototype tilt-wing transport aircraft being developed under Air Force management. This aircraft will have a gross weight of 37,000 pounds, cruise speed of more than 250 knots, a combat radius of 200-300 nautical miles with a four-ton payload and ten minute hover. It is planned to produce five prototypes for flight test and for the Army, Navy, and Air Force evaluation of operational problems and suitability, at a total estimated cost of about \$118 million. First flight is scheduled for July 1964.
- (b) X-22A - a twin-tandem tilting ducted fan-powered flight research vehicle being developed under Navy management. Two prototypes are being built at a total estimated cost of about \$18 million. First flight is scheduled for mid-1965.

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(c) X-19A - an aircraft with twin T-55 turbines and four tandem tilting propellers is being developed under Air Force management. Two of these aircraft are being procured at an estimated cost to the government of \$11.6 million as flight research vehicles.' First flight is scheduled for early this year.

The next item, New Surveillance Aircraft, for which \$8 million is requested, consists of three aircraft projects, the most important being the P-1127 HAWKER. The HAWKER is a British designed V/STOL development which the U.K., the U.S. and Germany are supporting on a tripartite basis. The United States' share for fiscal year 1965 is planned at \$12.8 million. The Army, which has the predominant interest (for a less vulnerable, more versatile successor to the MOHAWK surveillance aircraft), is managing the U.S. participation and is funding half of the U.S. cost. The Navy and Air Force are funding about one-quarter each. (In addition \$29 million has been included in the budget to support the development of propulsion systems for this type of aircraft.) The balance of the Army program is for continued work on two research aircraft; a turbine-driven lift (fan-in-wing) and an augmented thrust concept aircraft now being fabricated and tested.

The Air Force also has a number of separate projects in the V/STOL area. Including all of these projects, a grand total of about \$86 million has been budgeted for V/STOL technology in fiscal year 1965.

The \$18 million shown for the communications satellite for 1965 represents the Army's share of this project, which I discussed in context with the Department of Defense space program.

The heavy lift helicopter project was started in fiscal year 1963 by reprogramming \$15 million within the "RDT&E, Army" account for the purchase of six heavy lift "flying crane" type helicopters. These machines will be used to test the feasibility of the design requirements for heavy lift helicopters to move heavy Army equipment in support of combat operations over otherwise impassable terrain. If proven practical, such vehicles could greatly enhance the Army's mobility. Two million dollars is requested for 1965 to continue the test phase of this effort.

The next item, Anti-tank Weapon Systems, includes through fiscal year 1963 the advanced development effort on the SHILLELAGH combat vehicle weapon system. SHILLELAGH has been committed to production and deployment and its cost, therefore, is included in the General Purpose Forces Program. The amount shown for 1964 includes work on a heavy anti-tank assault weapon, known as TOW, which in 1965 will be advanced to the Engineering Developments category. I will discuss TOW under that heading. The \$4 million shown for 1965 would finance feasibility studies, supporting research and component investigations for a longer range improved SHILLELAGH.

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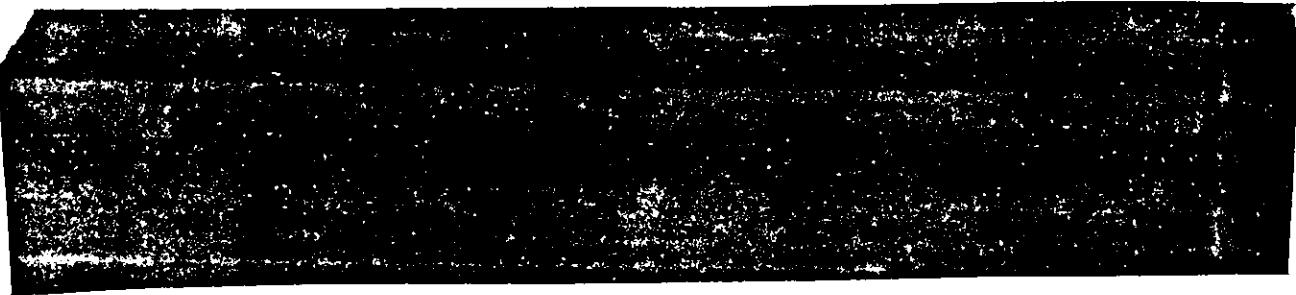
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I already touched on the Air Defense System of the 1970's in connection with my discussion of the Army General Purpose Forces. The \$5 million requested for 1965 will finance continuing studies and development of high risk components of an air defense system designed to replace, eventually, the NIKE-HERCULES and HAWK in the field army and possibly in the continental U.S.

2. Navy

The first two items in the Navy list of Advanced Developments are the Navy's share of the Tri-Service V/STOL and Tri-Service HAWKER project, both of which I have already discussed.

The \$89 million shown in the 1965 column for undersea warfare represents an aggregation of various projects. In addition to ARTEMIS and TRIDENT, which were covered earlier in Section III in connection with the defense against submarine-launched missiles, this item includes work on hydrofoils, detection by surface effects, acoustic countermeasures, etc. It should be noted that the projects included in this category represent only part of the total ASW research and development effort which is also financed under other headings. As shown on the table, our efforts in this area are being significantly expanded from year to year, reflecting the urgency of the ASW mission.



The fiscal year 1965 budget request includes \$2 million to determine the military usefulness, technical feasibility, and cost/effectiveness of Air Cushion Ships for the amphibious, mine warfare, strike, and ASW missions. The "air cushion" ship concept, because it provides for the physical de-coupling of the hull from the ocean, has several potential advantages including high speed, low magnetic signature, and internal ship arrangements not limited by conventional hull forms.

The next item, Special Warfare Navy Aircraft, for which \$6 million is requested for fiscal year 1965, is a new "state of the art", primitive area, STOL aircraft known also as the "COIN." The proposed aircraft is intended to be a combined weapons delivery and limited logistics support vehicle. This is part of a dual approach to the developmental problem in which the Air Force, at about the same investment cost, is concurrently modifying the

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T-37 and T-28 aircraft to determine the degree to which they can be successfully reoriented toward counterinsurgency use. Comparison of the results of the Navy and Air Force developmental efforts will determine whether it would be cheaper and more effective to produce a new aircraft for this purpose, rather than to modify existing aircraft. Although design and pricing studies indicate a new airplane would be more effective and cost less, we are putting the COIN effort through a project definition phase to obtain formal industry confirmation of our cost and performance projections. First flight would take place about 18 months after initiation of full-scale development.

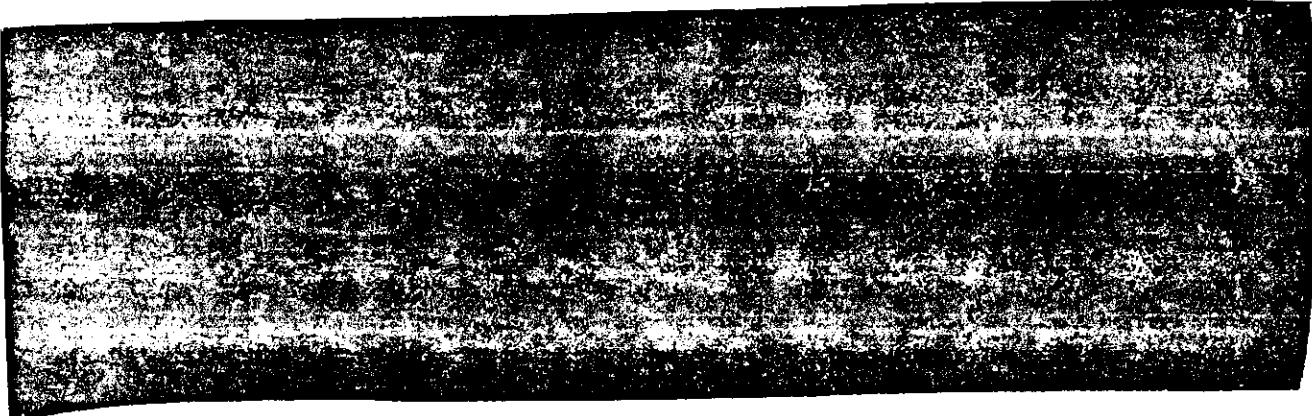
### 3. Air Force

The first three items on the Air Force list are all part of the V/STOL aircraft technology program, discussed earlier.

The fourth item, \$22 million in 1965, is the Air Force share of the DoD communications satellite program.

The next ten items have all been discussed previously in connection with the DoD space program.

Eight million dollars is requested in the 1965 budget to continue the X-15 project. This is a rocket-powered research aircraft which has contributed a great deal of useful knowledge, not only to aircraft design but also to our space effort. At least another 40 major experiments remain to be conducted with the X-15, many of which are expected to contribute significantly to our space effort.



Eight million dollars is requested to continue work on the Advanced ICBM project which we started two years ago and which I discussed earlier in connection with the Strategic Retaliatory Forces Program. Again I should caution that this is not a development project but rather a program to investigate technological and operational concepts for ballistic missiles.

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I have already discussed the Airborne Warning and Control (AWACS) project in connection with continental defense. The \$9 million included in the 1965 budget would permit the initiation of the radar development, which is the pacing component.

The \$12 million shown for TAC Fighter Avionics is for the development of an advanced air-to-air and air-to-ground delivery capability. It takes state-of-the-art technology and develops hardware which would greatly improve nighttime and all-weather delivery when adapted to aircraft such as the F-111A.

#### F. ENGINEERING DEVELOPMENTS

This category includes those development programs being engineered for Service use, but which have not as yet been approved for production and deployment.

##### 1. Army

I have already discussed in considerable detail, in the section on Continental Air and Missile Defense Forces, the first two items on the Army list. The \$40 million requested for NIKE-ZEUS would complete the test and evaluation program for that system. The \$33<sup>4</sup> million requested for NIKE-X would continue, on an urgent basis, the development of that new system.

As I noted earlier in my discussion of the Army General Purpose Forces Program, MAULER has encountered technical difficulties and has been put back into development status, for feasibility evaluation. Fifty-one million dollars is included in the fiscal year 1965 budget to continue development of an advanced forward area air defense system. We anticipate that the MAULER design difficulties will be evaluated within the next few months but MAULER will not be ready for production during fiscal year 1965.

The next item, LANCE, is a light weight missile system designed as an eventual replacement for HONEST JOHN and possibly LITTLE JOHN. Its self-propelled launcher and associated equipment are expected to have excellent

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cross-country characteristics and will be air transportable.

Development of the system was initiated with the \$18 million provided in fiscal year 1963. The \$58 million requested for 1965 would permit continuation of full-scale development. Development flight tests are expected to be completed by mid-1967.

I mentioned earlier that TOW, a wire-guided heavy anti-tank missile, is being moved from the Advanced Development category to the Engineering Development. The \$24 million shown in the fiscal year 1965 column of Table 19 would provide for continuation of development effort on this missile, which should have a very high kill capability against heavy tanks at a range of 10,000 yards. Guided test firings have already begun.

Last year I informed the Committee that we would begin actual development of a new main battle tank during the current fiscal year and that there was some chance the Federal Republic of Germany might participate in the development. An agreement to this effect was signed last August. The cost of the development, estimated at \$80 million, will now be shared by the two countries. Eleven million dollars is requested to finance the U.S. share in fiscal year 1965. The program is directed toward obtaining a standardized tank and an advanced weapon system for the 1970's. The present schedule calls for completion of the development in fiscal year 1969 and initial deployment of the system in calendar year 1970. The new tank will have at least triple the cross-country maneuver capability of the M-60 tanks, weigh 15 tons less, and present a lower profile, thereby making it a poorer target. Its design goals also call for much greater firepower, with a much higher first round kill probability.

In the area of Combat Surveillance and Target Acquisition, the 1965 program, funded at \$41 million, will continue work on both airborne and ground-based systems. Efforts will be continued to improve airborne radar, photographic, infrared and radiometric sensing devices and in-flight data processing and transfer systems. One of the important ground-based systems is the MPQ-32 radar, which will be able to locate enemy mortars and artillery by tracking their projectiles. The Army will also support work on nuclear surveillance and intelligence systems.

The Communications and Electronic Equipment program, for which \$69 million is requested for fiscal year 1965, includes the development of the automatic switching system which will form the heart of the Defense Communications System. In the area of tactical communications, work will be continued on a number of improvements for radios used in forward area operations. In avionics, increased effort will be made on the development of navigation and control systems for aircraft supporting the ground forces or special operations.

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The \$23 million for Air Mobility will continue support of the Light Observation Helicopter. Also included in this category is the aircraft suppressive fire program, which is concerned with the adaptation of such weapons as machine guns, 2.75" rockets, SS-11 anti-tank missiles, etc., to Army aircraft.

Thirty-eight million dollars is included for the development of Army artillery. Despite recent improvements in aircraft armament and tactical missiles, artillery continues to be a highly effective weapon for many missions. In order to improve performance and mobility, work will continue on a new light-weight self-propelled 155mm artillery weapon and its associated family of extended range ammunition.

The \$15 million requested for Infantry Weapons will permit the continuation of work on special ordnance for guerrilla and counter-guerrilla warfare; improved high explosive and illuminating shells for the 81mm mortar; a more effective vehicle mounted rapid fire weapon system; a new anti-tank weapon, and a 107mm mortar to replace the old 4.2-inch mortar. Also included in this category is work on a special purpose individual weapon capable of engaging both point and area type targets

## 2. Navy

The first five items on the Navy's list of Engineering Developments are all associated with the ASW mission and in total would cost \$86 million in fiscal year 1965.

The first Navy item on Table 19 is the Advanced Design ASW Destroyer Escort System (SEA HAWK). As I mentioned in my discussion of the Navy's General Purpose Forces, this is the first ship to be designed, from the keel up, as an integrated weapon system. This ship of about 3,500-4,500 tons is to be optimized for the ASW mission, and will incorporate a number of advances which we have made in our surface ship ASW gear. We hope it will succeed in countering the trend toward larger and more expensive ships, and that it will be significantly more capable and reliable and require fewer personnel. It will be quieter than existing ships and will carry a longer range sonar. These two features combine to permit higher speed operation with overall increased effectiveness. The \$20 million requested for fiscal year 1965 would continue the development effort.

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The next item, \$6 million for ASW Rockets, would provide for work on a new quick reaction ASW weapon to be installed in the SEA HAWK. This weapon would have a considerably longer range than the present ASROC.

The fourth item, \$20 million for Aircraft Engines, is for the continued development of a regenerative turbo-prop engine which was initiated two years ago. Such an engine would have a significantly lower specific fuel consumption than a straight turbo-prop engine at partial power and at low altitudes, the typical conditions under which ASW aircraft have to operate.

The fifth item, \$23 million for Other ASW Engineering Developments would provide for work on such projects as the development of new sonars and work on [REDACTED]

The next item is \$7 million to continue system development of an Air-to-Surface Weapon known as WALLEYE. [REDACTED] free-fall bomb with [REDACTED] WALLEYE would be carried by attack aircraft for use against tactical targets. [REDACTED]

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The \$10 million requested in fiscal year 1965 for Marine Corps Development would provide for engineering developments of interest to the Marine Corps, including radar surveillance systems, weapons and vehicles. Specific projects include an amphibious assault personnel carrier able to transport infantry weapons and supplies through very rough surfs in the assault phase of an amphibious operation, landing force amphibious support vehicle for rapid movement of supplies and equipment from ship to shore and overland, a family of lightweight helicopter-transportable high performance ground radars, and various elements of the Marine Tactical Data System.

The SEA MAULER development, which was described in this section last year, has been dropped from the program. This weapon system would be an adaptation of the Army's MAULER, but until the MAULER difficulties are resolved we should defer other applications.

### 3. Air Force

The first item on the Air Force list of Engineering Developments is the B-70. Two years ago the Congress appropriated \$363 million for the B-70/RS-70 development program. Last year I informed the Committee that we planned to apply \$221 million of that amount to fiscal year 1963 and \$81 million to fiscal year 1964 holding the balance of \$61 million in reserve. Actually, only \$207 million was utilized in fiscal year 1963. However, the B-70 has run into serious technical difficulties with the wing structure and tank sealing, and first flight has already been delayed by more than a year. This delay has greatly increased the cost of the project and instead of \$81 million in fiscal year 1964 the Air Force informed me it will need \$156 million. Accordingly, I have authorized the use of the \$61 million held in reserve for the B-70, plus the unused balance of fiscal year 1963 funds amounting to \$14 million. Another \$92 million will be needed in fiscal year 1965 of which \$55 million is available from the DYNASOAR program, as I indicated earlier. A final increment of \$25 million has been tentatively programmed in fiscal year 1966, bringing the total for the project to \$1.5 billion, \$200 million more than my original goal of \$1.3 billion for a program of three prototype B-70's.

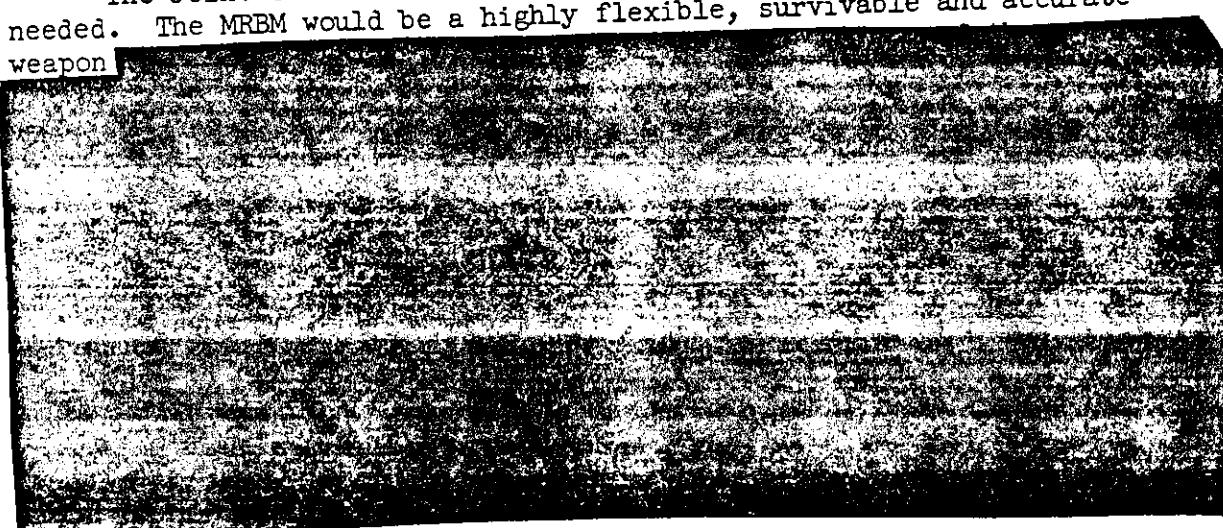
The \$1.5 billion, however, will support extensive flight testing of only two of the three aircraft, provided that there are no further slips in the schedule. If further delays are encountered the cost will exceed the \$1.5 billion figure. The first aircraft is now in final assembly and if the remaining problems of fuel tank sealing and attaching the wing to the fuselage can be overcome, the first flight is expected late this spring. The second XB-70 aircraft is tentatively scheduled to fly in October 1964.

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The next item on the Air Force list of engineering developments is Medium Range Ballistic Missile (MRBM) which was mentioned in the discussion of the General Purpose Forces Program and for which \$110 million is requested in fiscal year 1965. While no decision has been made to produce and deploy this system, I believe that we should proceed with its development as an insurance program to fill the range gap between the PERSHING and the ICBM's.

The Joint Chiefs of Staff are convinced that such a weapon system is needed. The MRBM would be a highly flexible, survivable and accurate weapon.



The following item, \$5 million for Advanced Strategic Manned Systems, provides for the continued study of long-range aircraft systems capable of penetrating enemy defenses and operating from U.S. bases. This program was discussed in the section on the Strategic Retaliatory Forces.

The next item, \$7 million for work on a Heavy Logistic Support Aircraft (CX), was discussed in the section on Airlift and Sealift.

#### G. MANAGEMENT AND SUPPORT

This category provides for the support of research and development installations such as ranges, test facilities and laboratories, and - in the case of the Air Force - specialized technical and scientific services performed under contract with outside institutions.

##### 1. Management of Defense Ranges and Flight Test Facilities

In April of last year I asked the Director, Defense Research and Engineering to undertake a study to determine the extent of duplication and to identify any excess of Defense range or test facilities and recommend whether any additional activities should be designated as national ranges or

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national test facilities. This study was completed last June and after reviewing it and the advice offered by all interested elements in the Department, I have ordered a number of changes. The most important of these are:

- (a) The Air Force will be assigned responsibility for managing and operating a world-wide satellite tracking and control facility for all Defense space programs except [REDACTED], COMSAT and a limited number of other projects which may be exempted in the future. The Air Force will provide a central authority for the combined planning of ICBM and space vehicle launch area range instrumentation and satellite on-orbit control facilities, to include both Atlantic and Pacific Missile Range launches, as well as remote stations world-wide.
- (b) Beginning in fiscal year 1965, the Air Force will gradually take over responsibility for custody, management and operation of Pt. Arguello, and Pt. Pillar facilities, with full assumption to be completed by the end of fiscal year 1966.
- (c) By the end of fiscal year 1966, the Air Force will assume responsibility for the ICBM impact area stations at [REDACTED] as well as the space tracking stations. The Army will assume responsibility for managing Kwajalein Atoll. The Navy, however, will continue to provide range services for all sea-based Pacific launches.

## 2. Army

As shown on Table 19, \$93 million is requested for the support of the White Sands Missile Range, one of the three National Ranges. The principal activities conducted are the testing of Army, Navy, and Air Force missiles, and other research tests for Defense and NASA. In 1965, White Sands will continue to participate in the Air Force Ballistic Missile Re-entry System Program.

The remaining \$168 million provides general support for the operation of a large number of Army research laboratories, test facilities, and proving grounds. It also includes the construction of new facilities and the procurement of equipment for existing installations. Many Army research activities are tenants at larger Army installations and a portion of the cost of maintaining these installations is borne by the research activity and is included here.

## 3. Navy

The operation of the Pacific Missile Range will require \$159 million in 1965 and is funded in the Navy budget. As the Air Force assumes responsibility for the Pt. Arguello and Pt. Pillar facilities, funds will be

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transferred from Navy to Air Force, under the authority provided in 10 U.S.C. 126. This range, consisting of a complex of instrumentation facilities along the California coast and extending across the Pacific, supports Air Force, Navy and NASA launches from Vandenberg, Point Arguello and Point Mugu, the NIKE-ZEUS tests at Kwajalein and other missile and space programs. The range is used in testing and crew training for Air Force strategic missiles, and for Navy ship and aircraft missiles.

The next item, Atlantic Undersea Test and Evaluation Center (AUTEC) will require \$19 million in 1965, somewhat less than is provided in the current year. Among its important uses are the testing of various anti-submarine weapons and equipment, the measurement of noise levels of U.S. submarine and surface ships and the calibration of sonar equipment. Included in the 1965 program are funds for the construction and instrumentation of additional facilities required to develop more effective systems for the detection and tracking of submarines, particularly nuclear-powered submarines.

The remaining \$195 million is for general support of the extensive system of Navy-operated laboratories, test centers, and other field activities associated with the research, development, test, and evaluation effort.

#### 4. Air Force

For the Atlantic Missile Range, the third of the national ranges, \$231 million is provided. This range will continue to support the Air Force strategic missile programs including penetration aids tests, and the POLARIS development and operational test program. Increased support will be required for the Defense Department and NASA space efforts, including the manned space flight programs.

Funding for the Defense Documentation Center (formerly the Armed Services Technical Information Agency) has been transferred in the fiscal year 1965 budget estimates to the Defense Supply Agency (DSA), paralleling an organizational change being made this year.

General Support, including "Development Support", will require \$666 million in 1965. This item carries the major support of the Air Force Systems Command and its nationwide complex of research, development, and test installations, the construction of additional research and development facilities, and other support programs. It includes about \$100 million for the cost of services provided under contract by organizations such as RAND, Aerospace Corporation, and the Space Technology Laboratories.

#### 5. Defense Supply Agency

As mentioned above, management of and funding for the Defense Documentation Center has been shifted to the Defense Supply Agency. Inasmuch as this activity performs a Defense-wide function, DSA is a more

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logical organizational environment for it. In fiscal year 1964, a total of \$10 million has been required to support the expanded effort of the Center which is charged with the acquisition, storage and distribution of scientific and technical information for both the Defense Department and our contractors. For fiscal year 1965, a small increase to \$11 million will be required.

#### H. EMERGENCY FUND

For the DoD emergency Fund, as in prior years, we are requesting the appropriation of \$150 million and transfer authority of the same amount.

#### I. FINANCIAL SUMMARY

The Research and Development Program I have outlined will require \$6.7 billion in New Obligational Authority for fiscal year 1965. A comparison with prior years is shown below:

	(\$ Billions, Fiscal Years)			
	<u>1962</u> <u>Actual</u>	<u>1963</u> <u>Actual</u>	<u>1964</u> <u>Estimated</u>	<u>1965</u> <u>Proposed</u>
R&D - except systems approved for deployment	4.2	5.1	5.4	5.5
R&D - systems approved for deployment	<u>2.6</u>	<u>2.5</u>	<u>2.2</u>	<u>1.8</u>
Total R&D	6.8	7.6	7.6	7.3
Less: Support from other appropriations	<u>-0.5</u>	<u>-0.5</u>	<u>-0.5</u>	<u>-0.5</u>
Total R&D (TOA)	6.3	7.1	7.1	6.8
Less: Financing Adjustments	<u>-0.9</u>	<u>-0.1</u>	<u>-0.2</u>	<u>-0.1</u>
Total R&D (NOA)	<u>5.4</u>	<u>7.0</u>	<u>6.9</u>	<u>6.7</u>

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## VIII. GENERAL SUPPORT

General Support constitutes an "all other" or residual category of activities or programs and includes all costs not capable of being directly or meaningfully allocated to the other major programs. Because of the large number and wide variety of the functions encompassed by this major program, it is best discussed in terms of its constituent parts.

For purposes of convenience, the various elements of the General Support Program have been divided into ten broad groupings: individual training and education; intelligence and security; communications; logistics support; military family housing; medical services; headquarters and support services; the National Military Command System; the Defense Atomic Support Program; and miscellaneous Department-wide activities. These broad groupings are themselves further broken down into more specific categories or functions, a selected list of which is shown on Table 20.

Much of the General Support Program, for practical management purposes, represents "fixed charges." Moreover, elements such as recruit training, are so influenced by other program factors such as the size of the forces and personnel turnover rates, that comparatively little flexibility exists in controlling their costs directly. But, wherever we have had some discretion in the fiscal year 1965 program, we have ruthlessly eliminated marginal items or activities.

I will briefly describe each element of the General Support Program shown on Table 20, and highlight some of the important trends and some of the actions taken to reduce costs.

### A. INDIVIDUAL TRAINING AND EDUCATION

This portion of the General Support Program includes the cost of equipment, base support, construction, instructors, students, and travel directly related to recruit, technical, professional, and flight training, as well as support of the Service academies.

#### 1. Recruit Training

Included, here, are the basic training programs for new recruits and inductees, and certain advanced individual training courses for Army personnel, conducted in recruit training centers. The costs of six-month active duty training for Reserve and National Guard enlistees are allocated to the Reserve and National Guard Program.

About two-thirds of the overall cost of recruit training is borne by the Army, chiefly because of higher Army enlisted personnel turnover

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rates stemming from reliance on the draft. Also, the recruit training cycles of the Army and Marine Corps are longer and more costly since these Services necessarily provide more weapons instruction than do the other Services.

Recruit training loads and costs for active forces personnel will be lower in fiscal year 1965 than in fiscal year 1964, mainly because of lower estimated draft calls. Under current plans, inductions in the Army will drop from about 159,000 in fiscal year 1964 - a high replacement year - to about 111,000 in fiscal year 1965. The reduced training requirements for inductees will be partially offset by an estimated net increase of about 11,000 in regular enlistments into the four Services.

## 2. Technical Training

Technical training costs include those associated with developing the hundreds of specialized skills required by our military personnel, other than flight training or professional-level courses. In addition to the costs of operating the technical training schools of the four Services, and related training equipment procurement and construction costs, the figures shown in Table 20 include the pay and allowances for the active-duty personnel assigned for training to these schools.

A large majority of the one-half million new personnel who enter military service each year require an initial period of formal technical schooling before they can be assigned for duty to an operating unit. In addition, advanced or specialized training is provided to many of our career personnel to train them in new equipment or procedures and to qualify them for higher levels of responsibility.

A major portion of technical training costs is concentrated in those specialties associated with operation and maintenance of electronics and missile guidance equipment, and other advanced weapons systems. In spite of the relatively inflexible nature of a major share of technical training costs, there are opportunities for improved cost effectiveness in training without compromising quality. I have requested my staff and the military departments to closely review the programmed technical training loads to be sure that they are closely geared to hard-core needs for school-trained personnel. A recomputation of Air Force training requirements resulted in a reduction of 7,600 spaces in fiscal year 1965, with a total cost reduction of \$29.0 million.

We plan an intensive appraisal of the content of our more costly training programs. Courses which go beyond the basic skills and knowledge actually needed for the job will be pruned. In the less technical skills, studies will be made to determine the desirability of more extensive use of on-the-job training.

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Another aspect of our efforts to reduce technical training costs is our effort to reduce the expensive turnover of highly trained enlisted specialists. Last summer, I authorized a revision in the system of enlisted proficiency payments, providing for a greater concentration of these incentive payments in our most costly technical specialties. The revised plan provides for selective increases in rates of proficiency pay in the Army, Navy and Marine Corps from the current rates of \$30 and \$60 per month to rates of \$50, \$75 and \$100 per month. The Air Force with less critical retention problems has not as yet revised its rates. The revised rates of proficiency pay, for those specialties certified under the new plan, became effective October 1, 1963. We intend to monitor the results of this new plan very closely during the coming year in order to determine the extent of "pay off" in terms of increased retention and reduced training costs.

### 3. Professional Training

Professional training encompasses primarily college-level and post-graduate level courses of instruction directed to the career development and professional qualifications of officers and selected enlisted personnel. Included in this category are the joint Service colleges, staff schools, post-graduate schools, officer candidate schools, and the education of military personnel at civilian colleges and universities.

Throughout the entire Defense Department, requirements for personnel with a scientific or engineering background are rising every year. For example, the Air Force estimates that within the next ten years some 22,000 officers will have to receive additional professional training in order to develop, procure, and employ the sophisticated weapons systems which it will have. The Air Force's fiscal year 1965 professional training program will be held to about the current year's level, although there will be a small increase in the SAC MINUTEMAN education program in which launch control officers earn degrees in needed specialties while still performing assigned duties.

In its first full year of operation, the Department-wide Defense Language Program, managed by the Army, will conduct training in over 60 foreign languages for more than 6,000 military and civilian personnel of the Department of Defense and civilian Federal agencies. The Navy plans to increase enrollments in scientific fields of study at its post-graduate school at Monterey, California, and in civilian universities.

### 4. Flight Training

The principal cost elements of this category are the costs of operation of flight training bases and the related costs of procurement of training aircraft. The military pilot is the most expensive military specialist in our Armed Services today. The requirement for pilot training has, therefore, been subject to rigorous scrutiny.

The increase in cost shown on Table 20 reflects a planned step-up of pilot training rates in both the Air Force and Army. Much larger increases

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would have been required had not measures been initiated to curtail the amount of time spent by pilots in non-flying assignments. The Air Force, for example, has directed that all new pilot graduates shall be assigned to air crew duties for at least five years following their graduation, while the Army has stepped up its output of warrant officer aviators who will be assigned as pilot specialists to a wide range of Army pilot duties, other than those involving command supervision.

The pilot training output for the Air Force is scheduled to increase from 1,500 during the current fiscal year to about 1,700 in fiscal year 1965, 2,000 in fiscal year 1966, and about 2,760 per year in fiscal years 1967-69. These increases are planned to avert a serious pilot shortage in future years when large numbers of pilots who entered service during World War II will retire or be separated from flying status. To minimize the cost of these increased outputs, the Air Force has made a number of significant modifications in its pilot training curricula which will enable it to absorb the increased loads within its existing eight base structure for under-graduate pilot training, without impairing training effectiveness.

The Army pilot training program has also been expanded from about 1,000 pilots per year to nearly 1,500 per year in fiscal years 1964-66, after which the rate will return to slightly below 1,000 per year in fiscal years 1967-69. This increase is necessary to meet the Army's pilot requirements under its expanded aviation program.

The Navy pilot training rate, under current plans, is scheduled to continue in fiscal year 1965 at 1,700 per year, including allocations to the Marine Corps, as well as a small number of pilots to meet Coast Guard requirements.

##### 5. Other

The three Service Academies presently carry a total cadet training load of nearly 8,900 men. However, there is now legislation pending before the Congress to increase both Army and Air Force Academy enrollments over the fiscal year 1965-68 period. Anticipating Congressional approval of these increases, the Army and Air Force submitted proposals for the construction of new dormitories, classrooms, and other facilities to accommodate the increased student load. I have, however, deferred recommending such construction pending Congressional action on the student enrollment bill.

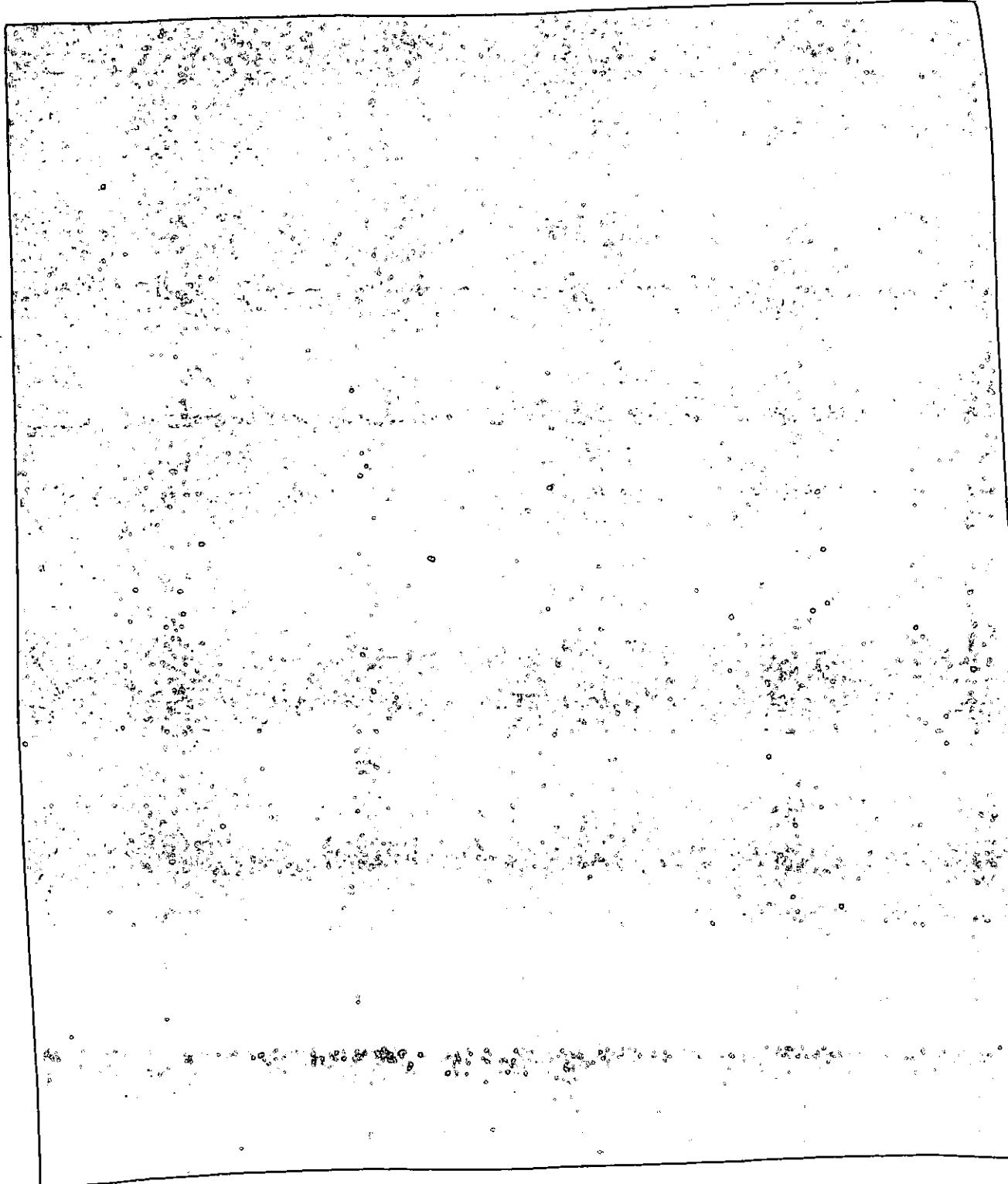
For fiscal year 1965, we propose only a modest construction program for the Academies, of about \$3.4 million for the Navy and the Army for the construction of minor facilities, e.g., public works shops and utilities distribution lines; and nothing for the Air Force. Other desirable, but deferable, projects have not been included in our request in order to hold the cost of our construction program for the next fiscal year to a minimum.

Also included under this heading are the costs of general training devices, films, publications, testing activities, correspondence schools and other miscellaneous training support activities, as well as the

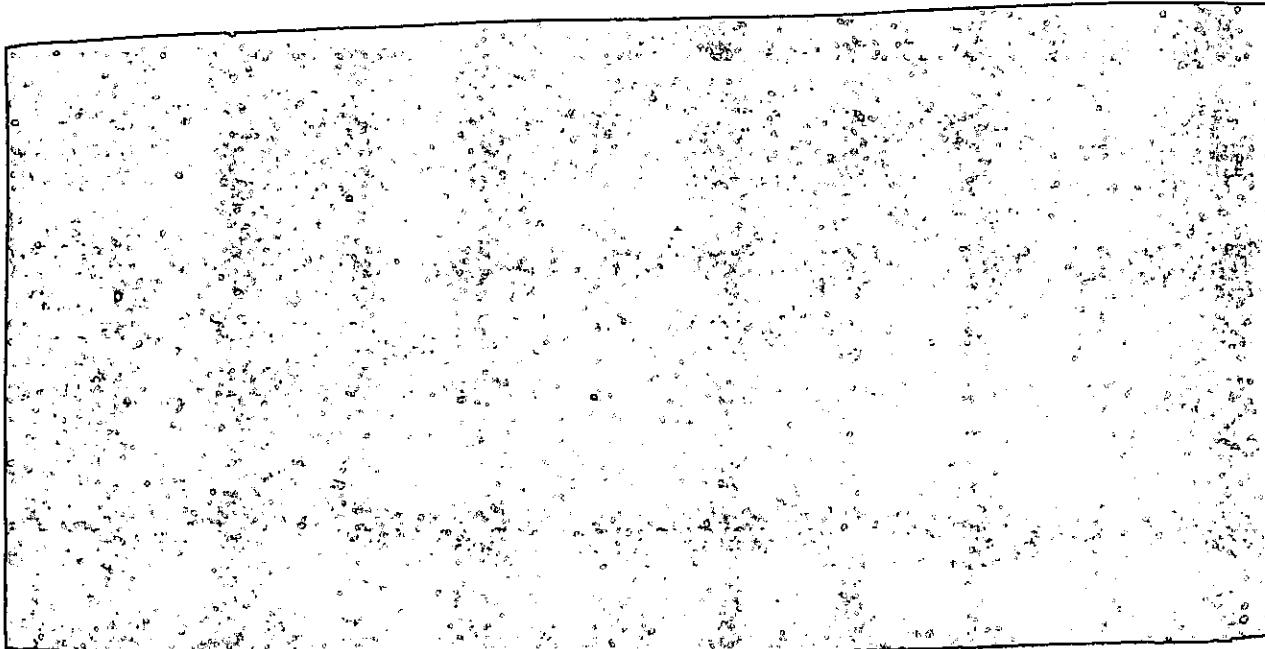
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operating costs of the major training command headquarters within each Service.

B. INTELLIGENCE AND SECURITY



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### C. COMMUNICATIONS

The Communications category includes the costs of the Defense Communications System (DCS) and certain non-DCS communications operated by the Military Departments. DCS elements include the long haul, point-to-point wire, cable, and radio communications facilities, both government owned and leased. Non-DCS elements include those tactical communications operated by the Military Departments which are self-contained within tactical organizations; self-contained information gathering, transmitting and/or communications facilities which are normally local in operation and use; land, ship, and airborne terminal facilities, shore-to-ship, ship-to-ship, air-to-air, and ground-air-ground systems.

The cost of the Air Force Communications Complex in fiscal year 1965 is estimated at about \$333 million, about \$28 million less than for the current year. Most of the reduction reflects a lower level of overseas construction, the result of eliminating projects which we did not feel were essential in light of our balance of payments situation.

There will be some increased costs associated with the Air Force's participation in DCS, including additional leased lines and communications equipment for the Automatic Digital Network, which provides transmission of record data and teletype information, and for the Automatic Voice Network which provides voice communication. However, these additional costs will be offset by net savings in future years.

The costs of the Naval Communications System will increase by about \$26 million in fiscal year 1965 to about \$192 million. The Naval Communications System provides the shore based elements of ship-to-shore communications, as well as a portion of the long haul point-to-point DCS facilities.

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Ship-to-ship and air-to-ground communications equipments are funded separately with the ships and aircraft in which they are installed. Increases over the current year's program are due to increasing operation and maintenance costs and the procurement of higher power transmitting equipment and multiplex broadcasting equipment to modernize and improve shore-based tactical communications facilities.

About \$188 million is included for procurement and operation and maintenance for the Army's STARCOM system, about \$5 million more than for the current fiscal year. STARCOM provides world-wide high frequency, multi-channel radio systems, microwave systems, switching centers, relay centers and terminal stations.

Communications costs display an inexorable tendency to rise with the mounting requirements for rapid and secure transmission of the growing volume of data generated by modern military operations. Therefore, a special effort has been made to hold additional communication programs to the minimum essential and numerous Service requests were denied or cut sharply in our program and budget reviews. For example, the Navy's original request for fiscal year 1965 operation and maintenance funds for its communications complex was reduced by \$1 million. In addition, a Navy proposal to spend \$96 million to modify certain ships for the installation of future communications equipment during their regular fiscal year 1965 overhaul was reduced to \$23 million. The Army's proposed operation and maintenance budget for its communications system was cut by some \$44 million. Similarly, the Air Force's request for leased communications circuits and equipments for its share of the Defense Communication System was reduced by \$33 million.

#### D. LOGISTICS SUPPORT

Logistics support comprises a wide variety of transportation, maintenance, real property and centralized logistics activities which, while essential to the military program, cannot be readily allocated to other major programs or elements. Included in the amount shown in Table 20 are: (1) the costs of moving cargo, freight and passengers - except for first destination transportation of cargo - by commercial carriers, the Military Sea Transportation Service, the Military Air Transport Service and contract airlift services; (2) the costs of purchasing, storing, warehousing, inventory, inspection and material management functions performed by the Defense Supply Agency and the logistics elements of the Services; (3) the costs of those parts of the industrial preparedness program (i.e., the provision of new industrial facilities, the maintenance and protection of idle facilities, pre-mobilization planning with private industry, etc.), which are not identified with elements of other major programs; (4) the costs of the major overhaul and rebuild activities for items repaired and returned to a common stock and which, therefore, cannot be related directly to military forces or weapon systems. The management

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of our logistics support activities will be covered in the discussion of the Cost Reduction Program in Section XI of this statement.

#### E. MILITARY FAMILY HOUSING

A total of \$719 million is included in the fiscal year 1965 budget for family housing: construction of 12,500 units - \$224 million; improvements to existing quarters - \$11 million; minor construction - \$1.2 million; planning and rental guarantees - \$2.4 million; operation and maintenance - \$308 million; principal payments on indebtedness - \$72 million; interest payments on indebtedness - \$90 million; and mortgage insurance premiums - \$11 million.

Two years ago we presented to the Congress what we believed to be a sound program for meeting our most urgent needs for family housing - a steady level of construction which would provide 70,000 units over a five-year period. To this end we proposed 15,000 units in fiscal year 1963 and 12,100 last year. The Congress, however, saw fit to fund only 7,500 new units in each of those years, leaving a deficit of about 55,000 units. We have completely revalidated our family housing requirements and are still convinced that they are both sound and urgent. I again strongly urge the Congress to approve a program of 12,500 units in fiscal year 1965. Even this would leave us one year behind our original long range plan.

We have made further progress during the past year in improving the management of family housing. The provision of all family housing funds in a single appropriation has significantly facilitated our administration of the program. The cost accounting system for family housing operation and maintenance, which was put into effect at the beginning of fiscal year 1963 has helped to ensure the use of a uniform set of maintenance standards at a considerable savings in maintenance costs. And an improved information-gathering system is now in effect which allows us to monitor occupancy and thereby ensure high housing utilization rates. A new uniform policy for controlling furniture and furnishings is now in effect, and pending a complete analysis of our current furniture inventory we are requesting only minor amounts (\$1 million total) this year for procurement and repair of furniture in the continental United States.

With respect to housing construction, a great many improvements have been instituted. For example, we have just completed a portfolio of standardized designs, which we will introduce for our fiscal year 1965 program. We believe that this standardization will significantly shorten the period between congressional appropriation and occupancy, establish common standards among the Services and achieve important economies in construction. For our housing needs in foreign countries we will continue to employ the "USAHOME" concept, which we started in fiscal year 1963 as a balance of payments measure, whereby we prefabricate housing components in the U.S. for erection at overseas sites.

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#### F. MEDICAL SERVICES

This category includes the costs of those medical and dental services, in the U.S. and overseas, not directly associated with military units in other major programs, the costs of medical care of military dependents at non-military facilities and other medical activities such as the Armed Forces Institute of Pathology and veterinary services.

The major determinants of the cost of medical services are the size of the active forces, the number of military dependents and retired personnel, trends of medical services and equipment costs and the medical facilities construction program. Because many of these factors are beyond our direct control, the task of keeping the costs of this program from rising rapidly is extremely difficult. For instance, while the hospitalization rate of active duty military personnel has reached an all-time low of 7.5 beds occupied per thousand troops, there is a growing requirement for medical care for retired personnel and their dependents. Presently, there are about 56,000 personnel retiring each year compared with only about 35,000 as recently as 1960.

Furthermore, the number of dependents per military man on active duty has increased from 1.43 in 1961 to 1.48. Thus, while further small reductions may be anticipated in the military in-patient load at military hospitals world-wide, any savings will be more than offset by increased costs for both in-patient and out-patient medical services for dependents. Thus, with no significant changes in overall workload anticipated, it is expected that the medical service personnel strength for fiscal year 1965 will have to be kept at approximately current levels.

#### G. HEADQUARTERS AND SUPPORT SERVICES

This aggregation is truly the "all other" category, and includes a heterogeneous assortment of essentially unrelated activities.

##### 1. Headquarters

This comprises the headquarters activities of the Military Departments, the unified and specified commands, the Military Assistance Advisory Groups, data processing units, fiscal and audit activities, engineering and inspection services and a wide variety of other centralized administrative and logistical activities. The scope and cost of these activities are generally related to the overall size and pace of the total Defense program.

A major objective of our program and budget reviews last summer and fall was to hold costs in this area to a minimum. To this end, we have

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ordered substantial staffing cuts in both our overseas and domestic headquarters operations which will be discussed later in connection with the overall personnel levels programmed for fiscal year 1965. The Services' requests for departmental administration funds in fiscal year 1965 have been cut by \$7 million.

## 2. Weather Service

This program comprises the aerial weather reconnaissance, air sampling, and weather observing and forecasting systems of the Navy and Air Force. These weather service elements of the Department of Defense compile and analyze meteorological and geophysical data affecting the operations of both our military forces and government missile and satellite activities. Some of the required data are available through civilian weather forecasting services, and these are used wherever possible.

Annual operating costs for this program will remain relatively constant, at about \$100 million. The balance of the costs stem from requirements for new and improved weather forecasting and sampling equipment such as radars, computers and meteorological stations.

In fiscal year 1965 we will retire 12 obsolescent WB-50 aircraft and return 5 C-130B's to TAC. As I mentioned in the section on the Air-and Sealift Program, we plan to replace these aircraft with 10 C-135B's to be phased out of MATS and modified for the weather reconnaissance role. And to meet additional weather reconnaissance requirements for our test ranges, we plan to retain 4 WB-57's in the force somewhat longer than previously planned.

## 3. Air Rescue/Recovery

The air rescue and recovery program of the Air Force comprises the Air Rescue Service (MATS), which at present maintains and operates 7 Rescue Coordination Centers, 12 air rescue squadrons, and 64 local base rescue detachments.

At the end of the current fiscal year, our program calls for an air/rescue fleet of 12 squadrons (94 UE aircraft - 30 HU-16's, 36 HC-54's, and 28 HC-97's). Last year I described a program which would have eventually replaced both the HC-97's and the HC-54's with HC-130's virtually on a "one for one" basis, and which called for the procurement of 30 HC-130's in the current fiscal year and long leadtime components for an additional 33 aircraft to be procured in fiscal year 1965. The Congress, however, appropriated funds for only 19 HC-130's and requested the Air Force to restudy its total HC-130 requirement. I further reduced the 1964 HC-130 program by 4 aircraft (to a total of 15). Pending completion of the HC-130 requirements study, we are not requesting restoration of the 15 aircraft cut from the

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current year's program. However, we are requesting funds in fiscal year 1965 for the 33 aircraft previously planned.

Operating costs for this program in fiscal year 1965 will remain at about the current year's level; however, the substantial increase in the number of aircraft we propose to procure will raise investment, and thereby total program, costs about \$35 million over the fiscal year 1964 level.

#### 4. Construction Support Activities

The next item, Construction Support Activities, includes the cost of minor construction, restoration of damaged facilities, construction of access roads, advanced planning, construction design and architectural services.

Last year we reported that we had succeeded in reversing the previous trend toward ever larger minor construction programs, which account for a substantial portion of the total cost of this element. For fiscal year 1965, we have been able to decrease further the amount of minor construction activity planned.

#### 5. DEEP FREEZE

Operation DEEP FREEZE is the U.S. scientific effort in Antarctica, sponsored by the National Science Foundation, with logistic support provided by the Navy. In support of DEEP FREEZE, the Navy now provides: one radar escort ship (DER) for weather service, search and rescue, and air navigation; two icebreakers (AGB) and four other ships; and one air squadron consisting of 20 aircraft of various types. Last year I concluded that Department of Defense support of Antarctic research ought to be funded at a stable level, consistent, of course, with meeting national objectives. In line with that concept, I am requesting about \$20 million for fiscal year 1965 for the Navy's portion of this project, the same amount as in 1964.

#### 6. Other Support Activities

The amounts shown on the Table for this category cover a wide variety of functions including: personnel centers; welfare and morale services; transients, patients and prisoners; disciplinary barracks; finance and audit services; the Naval Observatory; dependent schools (\$48 million), commissary stores (\$67 million including cost of military personnel); official mail, Fleet Post Offices; and similar activities. Also included under this heading are various classified projects.

#### H. NATIONAL MILITARY COMMAND SYSTEM

The National Military Command System (NMCS) is the prime component of the World-Wide Military Command and Control System. The other elements

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of the world-wide system - i.e., the headquarters of the unified and specified commands and those of lower echelons of command, DASA, DIA, DCA with their supporting communications, etc., that directly support the command and control functions - are included elsewhere in General Support, or as integral elements of other programs such as the Post-Attack Command and Control System in the Strategic Retaliatory Forces Program.

The NMCS is made up of a number of separate elements, including the National Military Command Center (NMCC) at the Pentagon, the Alternate National Military Command Center (ANMCC), the National Emergency Command Post Afloat (NECPA), the National Emergency Airborne Command Post (NEACP), and the various survivable communications networks linking these command facilities, the unified and specified commands and the Service headquarters.

The NMCS was established specifically to provide the national command authorities, which include the President, the Secretary of Defense, the Joint Chiefs, or their authorized successors, with the means to provide strategic direction to the armed forces of the United States. The survivability of this command and control capability is critical. The primary command center (NMCC), the fixed alternate (ANMCC), and the mobile alternates (NECPA, NEACP) are being operated as redundant centers to obtain the required levels of survivability. In order to perform their required functions, these centers are linked by reliable communications, warning and sensor systems, and are continuously manned and ready for use. The NMCS relies mainly on the Defense Intelligence Agency for intelligence, the Defense Communications Agency for long-line communications and other support, and the Services for information relative to forces, deployments, etc. The ultimate system as now conceived will provide a standardized, highly survivable, non-interruptable command capability for a wide range of possible situations, and will provide the national command authorities with a number of alternatives through which they may exercise their command responsibilities.

For fiscal year 1965, we will spend \$161 million on construction, equipment, R&D and operation of the NMCS:

- a. National Military Command Center (NMCC) - This is the central element of the NMCS and, as such, has certain unique functions not required of the other emergency command posts: it is responsible for the exercise of the overall system; and it must support both cold and limited war operations in contrast to the alternate centers, which are essentially oriented to general war.

The Joint War Room in the Pentagon is now serving as the NMCC; however, this 7,000 square foot area provides only an extremely limited capability for gathering, processing, and displaying information. We are now establishing an Interim National Military Command Center, which will be operational by the

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end of the year, of about 25,000 square feet in order to provide in one place global intelligence, up to date status of forces, and the other elements required for strategic decision making. The Moscow "hot line" also terminates here. This expansion will use presently available space and will integrate the Joint War Room with intelligence facilities and consolidate many functions vital to a coordinated information gathering effort. In addition to providing an improved operational capability, it will provide facilities for testing advanced techniques in data processing, display, television, and secure communications.

b. Deep Underground Command Center (DUCC) - Our continuing examination of the problems associated with an adequate national command and control structure for the contingencies which could arise in the 1970-75 time period convinces us that we should initiate the construction of a DUCC. A deep underground command facility would have two very important functions: to protect the command authorities and provide them with enough staff and essential data to render critical decisions, and to ensure the survival of the communications systems needed to disseminate those decisions.

Our studies and tests to date indicate that construction of such a facility at a depth of 3,500 feet is technically feasible. A DUCC at this depth should be able to withstand multiple direct hits with the very large nuclear weapons which might be available to an enemy by the 1970 time period. We presently envision a very austere DUCC capable of holding a relatively small number of people, located generally in the vicinity of the Pentagon and operationally available about 1970. To begin work we are requesting \$28 million in fiscal year 1965.

c. Alternate National Military Command Center (ANMCC) - The ANMCC is a fixed hardened installation. Construction at this site was substantially funded in prior years' budgets and the Center is nearly completed. We have included \$16 million for operating costs and \$1.6 million for construction in the fiscal year 1965 program.

d. National Emergency Command Post Afloat (NECPA) - In order to provide an interim seaborne alternate command post, we now have in the fleet one cruiser type, which has been converted to this purpose. In fiscal years 1963 and 1964 we received funds to "de-mothball" two escort carriers, and convert them to command ships. Our proposed fiscal year

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1965 program includes about \$9 million for research and development and procurement of the data processing, display, and communications equipment for one of these ships.

- e. National Emergency Airborne Command Post (NEACP) - Presently we are maintaining a fleet of 3 NEACP aircraft (modified KC-135's), one of which can be kept airborne at all times during an emergency to act as a communications link for the command system or for visual reconnaissance of post-attack conditions in key areas. For fiscal year 1965, we plan to begin work on basic airframe modifications to one aircraft in order to fit it with improved fan jet engines, which will provide increased power to the airborne electronic facilities, and to provide improved communications and surveillance capabilities. We intend to begin modification of a second aircraft in fiscal year 1966.
- f. Bomb Alarm System/NUDETS - Both these systems, which were discussed in the section on Continental Air and Missile Defense, are designed for detecting and evaluating nuclear detonations, and are integral elements of the NMCS.
- g. Communications Systems - Over \$22 million is included in the fiscal year 1965 program for the various communications systems which are designed to serve the NMCS, including: (1) the Secure Voice Communications System for issuing commands, alerting, interrogation, and control throughout the NMCS. (2) the Digital Communications System for exchanging record and data communications between command centers of the NMCS and the commanders-in-chief of the unified and specified commands, the Service headquarters, and other Government agencies. (3) the Visual Communications System for the direct exchange of graphic and visual intelligence within the NMCS and to the White House and the Department of State.

#### I. DEFENSE ATOMIC SUPPORT AGENCY

The Defense Atomic Support Program includes the activities of the Defense Atomic Support Agency (DASA), which has responsibility for providing specialized staff assistance to the Secretary of Defense and the Joint Chiefs of Staff, i.e., operational and training support to the Services, monitoring the AEC's atomic weapons development programs,

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planning and conducting nuclear weapons effects tests, related theoretical and laboratory work, and managing the national atomic weapons stockpile.

The production of fissionable material is, of course, the responsibility of the AEC, in whose budget the corresponding funds appear. Substantial portions of DASA's program were discussed previously under the "Nuclear Testing and Test Detection" portion of the R&D Program. At this point, I will discuss the funding implications of this program.

I stated last year that for fiscal year 1964 we would require total obligational authority of about \$115 million for this program. However, the limited test ban treaty and the concomitant responsibility it imposed for increased preparedness in case of a resumption of nuclear testing increased our 1964 fund requirements to \$133 million. Most of this increase was caused by the need to maintain a "ready" nuclear testing capability which, in turn, required certain physical improvements at our Johnston Island test facility. To provide the necessary additional land for nuclear test facilities, we have undertaken the addition of about 358 acres to the Island through a dredging operation at a cost of approximately \$27 million. In order to have the Island enlargement completed by the promised readiness date of June, 1964, we had to begin dredging before passage of the fiscal year 1964 construction authorization and appropriation acts. To this end, I approved the reprogramming of \$16.4 million of ARPA and Air Force fiscal year 1963 military construction funds to cover costs incurred prior to passage of fiscal year 1964 legislation. To continue the necessary improvements, Congress appropriated an additional \$20 million in fiscal year 1964. Another \$4 million is included in the 1965 budget.

For fiscal year 1965 we are estimating Defense Atomic Support costs at \$164 million, \$31 million more than the current fiscal year. All DASA program elements remain close to the fiscal year 1964 level with the exception of Nuclear Weapons Effects Tests. In this case, additional funds are required primarily to achieve and maintain U.S. readiness to conduct nuclear tests in environments now forbidden by the limited test ban treaty, to place greater emphasis upon the development of test instrumentation, and to increase efforts in underground testing to compensate in part for the restriction on atmospheric testing.

#### J. MISCELLANEOUS DEPARTMENT-WIDE ACTIVITIES

Miscellaneous Department-wide Activities include the management and staff advisory functions of the Office of the Secretary of Defense and the Organization of the Joint Chiefs of Staff; Departmental-wide funding for claims; a contingency fund for military purposes controlled by the Secretary of Defense; and the Armed Forces Information and Education Program.

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## 1. Contingencies

For many years now, Congress has provided certain funds which may be used for confidential military purposes in unusual, unexpected situations, when speedy, but secret, action is required. Although use of these funds is authorized by the Secretary and accounted for solely on his certificate, Congress is informed as to the status of these funds. In fiscal year 1963, \$14.4 million of the total of \$15 million appropriated was obligated, and in 1964 we estimate that all of the \$15 million appropriated will be used. For fiscal year 1965, we are requesting \$15 million, the same amount as provided in former years.

## 2. Claims

The appropriation for Claims provides for the payment of all non-contractual claims against the Department of Defense. For fiscal year 1963, \$19 million was appropriated, and another \$3.3 million was transferred by congressional action from the "Retired Pay, Defense" appropriation account to cover the high volume of claims. Another \$19 million was appropriated for this fiscal year, and additional funds may yet be required. For fiscal year 1965, we are requesting \$23 million in anticipation of a continuation of the higher rate of claims.

## 3. All Other

The Armed Forces Information and Education Program, which provides world-wide radio, television and press services, together with a program designed to promote a broad understanding of national goals and purposes, will be continued in fiscal year 1965 at about the same level of activity as the current year, at a cost of about \$4.3 million.

Total obligational authority for the Secretary of Defense's own office will support a staff slightly smaller than in fiscal year 1964. Also included in the amount shown for this item on Table 20 is \$5.0 million which would be transferred to the Treasury Department to complete the construction of the Eastern-Middle Atlantic chain of LORAN stations.

## K. FINANCIAL SUMMARY

The General Support Program I have outlined will require Total Obligational Authority of \$14.8 billion for fiscal year 1965. A comparison with prior years is shown below:

(Fiscal Year, \$ Billions)

	<u>1962</u> <u>Orig.</u>	<u>1962</u> <u>Final</u>	<u>1963</u> <u>Actual</u>	<u>1964</u> <u>Estimated</u>	<u>1965</u> <u>Proposed</u>
TOA	11.4	11.8	13.2	13.9	14.8

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IX - RETIRED PAY

This section covers the pay, as authorized and prescribed by law, of military personnel on the retired lists and provides for payments to survivors pursuant to the Retired Serviceman's Family Protection Plan.

In fiscal year 1965 the average number of retired military personnel is expected to rise to about 466,000, an increase of about 54,000 over the current year's estimate. As shown below, a continuation of that trend should see the average number of annuitants on the retired roles reaching 706,600 and the annual cost exceed \$2 billion by the end of this decade.

<u>Fiscal Year</u>	<u>Number of Retirees (Thousands)</u>	<u>Average Cost (\$)</u>	<u>Total Cost (\$ Millions)</u>
1961	275.9	2,856	788
1962	313.4	2,858	896
1963	358.8	2,828	1,015
1964	412.4	2,931	1,229
1965	466.1	3,002	1,399
1966	515.1	2,980	1,535
1967	564.0	2,961	1,670
1968	614.1	2,943	1,807
1969	664.3	2,930	1,946
1970	706.6	2,920	2,063

While total costs of retired pay will rise in the future as increasing numbers of personnel become eligible and retire, the average cost per retiree is expected to decrease (barring changes in the rate structure). The vigorous efforts made over the past decade to enhance the attractiveness of a Service career has resulted in larger numbers of enlisted personnel staying on long enough to attain retirement eligibility. And as the proportion of former enlisted men on the retired roles increases, the average cost per retiree declines.

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## X. CIVIL DEFENSE

Civil Defense is an integral and essential part of our overall defense posture. I believe it is clear from my discussions of the Strategic Retaliatory and Continental Air and Missile Defense Forces that a well planned and executed nation-wide civil defense program centered around fallout shelters could contribute much more, dollar for dollar, to the saving of lives in the event of a nuclear attack upon the United States than any further increases in either of those two programs. Indeed, our studies indicate that an effective civil defense program could increase the number of persons surviving a determined Soviet nuclear attack in the 1970 period by tens of millions, at a total investment cost to the Federal Government of about \$3½ billion.

An effective civil defense program requires two major elements: a nation-wide system of fallout shelters, properly equipped and provisioned, to protect our population from the fallout effects of a nuclear attack; and planning and organization of the capabilities essential to the effective use of this system, including the ability to carry out essential post-attack emergency operations.

Basically, there are four sources from which we can obtain our ultimate goal of fallout shelters for the entire population. These include: 1) Independent private initiative, reflected in the efforts of thousands of home owners and business organizations who have developed their own fallout protection; 2) The national shelter survey, marking, and provisioning program; 3) Fallout shelter protection in Federal buildings; and 4) The Dual-purpose Shelter Development Program designed to encourage the provision of low cost shelters in selected public and institutional buildings through Federal financial assistance.

The first source, independent private initiative, while least expensive to the Federal Government, is not expected to yield more than 50 to 55 million spaces by 1970. The second source, which is already being intensively exploited, is expected to supply more than 90 million spaces by 1970. The third source, Federal buildings, could produce perhaps another 5 million spaces, providing that the Congress authorizes the required work and appropriates the required funds. The fourth source, the Dual-purpose Shelter Development Program, we estimate will be needed to provide the balance of the 240 million spaces required for the protection of the entire population at home and at work. The Civil Defense Program proposed for fiscal year 1965 is summarized on Table 21.

### A. SHELTER SURVEY AND MARKING

The purpose of the Shelter Survey Program is to locate, evaluate, and mark usable public fallout shelter spaces in existing facilities.

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More than 100 million shelter spaces with a minimum protection factor of 40 or better have already been identified in some 125,000 existing facilities. Of this total we estimate that about 70 million spaces will eventually be made available by their owners, i.e., licensed for public use. As of December 25, 1963, almost 79,000 facilities containing more than 65 million shelter spaces had actually been licensed or marked.

In view of the large return in shelter spaces for the cost involved, we plan to continue this program in the years ahead. The \$9.2 million requested for fiscal year 1965 for the survey and marking of newly constructed facilities should add more than four million licensed shelter spaces to the national inventory.

#### B. DUAL-PURPOSE SHELTER DEVELOPMENT

The shelter spaces identified by the survey program are heavily concentrated in urban areas. We have found that suitable facilities are scarce in the suburbs, smaller cities and towns, and rural areas. Moreover, as I indicated earlier, the shelter survey program is expected to produce only about 90-odd million licensed spaces by 1970. Accordingly, we proposed two years ago and again last year a dual-purpose shelter development program designed to fill this gap. After extensive hearings last year, the House Armed Services Committee reported out and the House approved a Bill (H.R. 8200) incorporating the major elements of our proposal. This Bill is now pending before the Senate.

Under the provisions of H.R. 8200, the Department of Defense would be authorized to make payments to states, their political subdivisions (or instrumentalities of either) and to non-profit institutions which agree to provide public shelter space through modification of existing facilities owned by them or in new buildings constructed by them. The non-profit character of these institutions would be determined in accordance with criteria established under the Internal Revenue Code.

To be eligible for Federal payments, the space provided must meet Federal shelter standards and criteria and the applicant must sign an agreement permitting the space to be marked, stocked, and used as a public shelter in an emergency. The rate of payment could not exceed an average cost of \$25 per shelter space, or actual cost, whichever is less.

The shelter survey has disclosed many opportunities for low cost modifications of existing buildings, some of which would involve no more than improvements in ventilation. We propose in the first phase of the shelter development program to concentrate our efforts on these low cost modifications. On the basis of the engineering estimates developed in the course of the shelter survey, we believe that the first increment of shelter spaces under

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the new program can be provided at costs well below the proposed maximum Federal payment. Most of these opportunities for low cost shelter development, however, would be exploited in the first full year of the program.

We have included \$175 million in the fiscal year 1965 budget, again on the assumption that H.R. 8200 will be enacted in this session of the Congress. Since we have not had an opportunity to acquire experience in public acceptance or in the administration of the shelter development program, we do not contemplate any changes at this time in either the scope of eligibility or in the degree or amount of financial assistance. The \$175 million requested for fiscal year 1965 is, in our judgment, the minimum amount required to maintain the momentum of the shelter program as a whole and to initiate the new dual-purpose shelter development program in all fifty states. As we exhaust the opportunities for low cost modifications, the average cost per shelter space will increase. We expect the initial \$175 million increment of the program to produce 10.7 million spaces with an average cost of \$17 per space. The next \$175 million increment would produce about  $7\frac{1}{2}$  million spaces at an average cost of about \$23 per space.

#### C. SHELTER IN FEDERAL BUILDINGS

If we are to ask private firms and institutions to provide shelter space for their employees and the general public, the Federal Government should certainly be prepared to do the same. Some \$17.5 million was appropriated for this purpose in fiscal year 1962 to provide about 500,000 shelter spaces in existing Federal buildings. However, the bulk of these funds was transferred to the General Services Administration (GSA), and because of the restrictive language included in the Independent Offices Appropriations Act of 1963, most of these funds have not actually been spent. These restrictions would be removed by enactment of H.R. 8200, at which time the GSA plans to resume work on the fiscal year 1962 program.

The \$20 million requested for this item in fiscal year 1965 includes funds for one million shelter spaces in existing Federal buildings. Funds for the provision of an additional 200,000 spaces in new Federal buildings have been included in the fiscal year 1965 construction budgets of the military departments and other Federal agencies. Under present policies, the cost of modifying existing Federal buildings to provide fallout shelter is included in the Civil Defense Program. The cost of providing shelter spaces in new Federal buildings is included in the construction budgets of the respective departments and agencies of the Federal Government.

The shelter construction funds included in the Civil Defense Program will be transferred to other Federal agencies and the military departments for planning, design, and construction based on proposals for the modification of specific buildings.

We believe that this element of the Civil Defense Program is of great

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importance. We expect that many non-profit institutions eligible under the Dual-Purpose Shelter Development Program, as well as many private industries, will follow the Government's lead and incorporate shelters in their own facilities. Furthermore, the program in Federal buildings will expand the technical base for the evaluation of shelter design and cost over a wide range of climatic and geographic conditions.

#### D. SHELTER PROVISIONING

The Defense Department, under the Civil Defense Program, is responsible for providing stocks of food and water, medical and sanitation supplies, and radiation kits for all licensed public shelters. The funds appropriated by the Congress for fiscal years 1962, 1963, and 1964 will provide sufficient stocks for approximately 60 million shelter spaces at a cost of about \$2.42 per space, including warehousing and transportation. These provisions are procured and warehoused under the direction of the Defense Supply Agency and distributed to local governments through 79 Defense Department and GSA warehouses. Local governments are responsible for storing and maintaining the supplies in the shelters. The \$46.4 million requested in the fiscal year 1965 budget would provide stocks for another 19 million shelter spaces, bringing the total to 79 million spaces, the number anticipated to be licensed and ready for stocking by the end of fiscal year 1965.

#### E. WARNING

An element of the Civil Defense Program is timely warning to alert the civilian population. In recognition of this fact, we have applied approximately \$10 million to the development and test of a new warning system, the National Emergency Alarm Repeater (NEAR), designed to provide almost instantaneous nation-wide warning to every home, office, and factory served by electric power. Indications of an impending attack would be picked up by the various warning networks, transmitted to Air Force sector headquarters, and when the indication was verified, the NEAR system, using existing power lines, would relay the warning throughout the country.

NEAR entered the engineering test phase in October 1962 and will continue in that phase through fiscal year 1964. The \$1.5 million provided for 1964 will permit completion of system testing and the survey of about one-third of the more than 3,000 electric utility companies in the United States. These surveys will provide data needed to select the best signal converter locations so as to obtain the required signal coverage at the lowest installed cost. Included in the \$4.5 million requested for fiscal year 1965 is \$2.7 million to complete the utility system survey and gather all the essential data necessary to plan the nation-wide installation of an operational NEAR system when engineering testing is completed.

The balance of \$1.8 million is for initial field testing of a low frequency radio system designed to provide a means for alerting and informing State and local governments; for the provision of fallout

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protection for warning points of the National Warning System; and for the maintenance of the Washington Area Warning System.

#### F. EMERGENCY OPERATIONS

A total of \$15.2 million has been included in the fiscal year 1965 budget for emergency systems.

##### 1. Radiological Monitoring

In the event of a nuclear attack on the United States, fallout radiation in varying degrees of intensity would be present in all or most areas of the country. Protection of the people and early recovery of vital facilities could be accomplished only through an organized capability for detecting, monitoring, reporting and analyzing the fallout situation at each affected locality. Radiation measuring and detection instruments are the only known means of gaining reasonably accurate information of the fallout radiation levels at a specific geographic location. For the continued development of this nation-wide radiological defense capability, \$7.4 million has been included in the fiscal year 1965 budget.

##### 2. Emergency Broadcast System

In a war emergency selected radio broadcast stations would be required to operate in a fallout environment within the framework of a national plan for emergency radio broadcasting in order to disseminate civil defense information and directions to the public. To attain this emergency capability, a national network of radio broadcast stations will have to be furnished fallout protection for operating personnel, auxiliary power backup and an emergency radio communications link to local government authorities. Some \$5.6 million will be required to provide an emergency capability to 450 stations in fiscal year 1965.

##### 3. Damage Assessment

Damage assessment responsibilities assigned to the Department of Defense include the determination of the effects of enemy attack upon the human and material resources of the nation. In the pre-attack period, damage assessment provides the basis for planning, program evaluation, and measures to reduce vulnerability. In the post-attack period, damage assessment provides the information needed for directing emergency operations and rehabilitation planning. The fiscal year 1965 budget includes \$2.2 million for the development and maintenance of data on the location of national survival resources, and for use of automatic data processing equipment for both vulnerability analyses and post-attack damage assessment.

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#### G. FINANCIAL ASSISTANCE TO STATES

As a result of the increased emphasis upon civil defense at the Federal level, additional responsibilities have been assumed by State and local civil defense organizations. Even before the full impact of the responsibilities and demands placed upon State and local civil defense under the shelter survey and provisioning activities has been absorbed, we anticipate placing even greater demands upon them in connection with the Dual-purpose Shelter Development Program. Accordingly, we have included \$35.7 million in the fiscal year 1965 budget to assist State and local governments by matching their expenditures on civil defense, an increase of \$4.7 million over fiscal year 1964.

#### H. RESEARCH AND DEVELOPMENT

We are requesting \$15 million in the fiscal year 1965 budget for civil defense research and development. Much of this work is accomplished by arrangements with other elements of the Department of Defense and other Federal agencies. Included in the 1965 program is the provision for continuing work on low cost fallout shelters; investigation of the cost and feasibility of providing peripheral blast and fire protection; studies on fire spread and thermal effects of nuclear weapons; additional work on various supporting systems such as warning and communications; a larger effort on problems of the short-term post-attack environment; and analytical studies of complete civil defense systems.

#### I. MANAGEMENT

For the overall management of the Civil Defense Program we are requesting \$15 million, \$900,000 more than the current fiscal year. This increase is required to support the 1,062 personnel authorized in the fiscal year 1964 Appropriation Act under the new pay rates which became effective January 1, plus a minimal increase of 29 positions associated with expanded programs.

#### J. PUBLIC INFORMATION

The fiscal year 1965 budget includes \$4 million for civil defense public information. Major emphasis will be placed on the development of informational materials for direct use at the local level; on increased use of radio and television to inform the public on emergency actions; on materials needed to keep civil defense officials informed on the program; and on technical guidance for professional architects and engineers, school, hospital and welfare institution administrators and industrial and commercial leaders.

#### K. TRAINING AND EDUCATION

Efforts to improve the civil defense operational capability within each State through intensive training and use of education resources,

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expanded instruction, and improved training techniques will have to be increased in fiscal year 1965 in step with our rising capability to provide shelter. Accordingly, \$18 million has been included in the 1965 budget for this purpose, \$4.2 million more than 1964.

Nearly 5,000 civil defense leaders and training instructors received training at three civil defense schools in the past year. A somewhat larger number would receive a longer period of training in fiscal year 1965.

Civil defense training capability was enhanced in fiscal year 1964 by contracting with a State university or land-grant college in each State, the District of Columbia and Puerto Rico to produce trained civil defense instructors and for direct training of shelter managers and radiation monitors. In addition, existing capabilities within the Services are being exploited. For example, on a reimbursable basis, the Army is producing and distributing civil defense training films to support the on-going State and local training efforts. Also, Army personnel are conducting classes for State and local radiological monitors.

Adult education, medical self-help and rural civil defense public education activities will be conducted in all 50 States at increased levels in fiscal year 1965. Filmed materials developed in fiscal year 1964 for adult education and medical self-help courses will be available during fiscal year 1965 for nation-wide television use.

As of the end of calendar year 1963, over 4,000 architects and engineers had completed Department of Defense sponsored fallout shelter analysis courses. In addition, nine protective construction courses, seven workshops and seminars in shelter planning and an environmental engineering course were conducted and activity in this area is scheduled to rise in fiscal year 1965.

#### L. FINANCIAL SUMMARY

The Civil Defense Program I have outlined will require Total Obligational Authority of \$358 million in fiscal year 1965. A comparison with prior years is shown below:

(\$ Millions, Fiscal Years)					
	<u>1962</u> <u>Orig.</u>	<u>1962</u> <u>Final</u>	<u>1963</u> <u>Actual</u>	<u>1964</u> <u>Est.</u>	<u>1965</u> <u>Proposed</u>
Total Obligational Authority					
Dual-Purpose Shelter Programs	-	-	-	-	175
Other	-	<u>252</u>	<u>125</u>	<u>112</u>	<u>183</u>
Total	-	252	125	112	358

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## XI. THE FIVE-YEAR COST REDUCTION PROGRAM

Last year I reported to you that we had launched a formal five-year cost reduction program with the objective of achieving by fiscal year 1967 recurring annual savings of \$3.4 billion through improvements in operating efficiency. We completed our first full year of operation under this program on June 30, 1963. Originally, we had set a cost reduction or savings goal of \$750 million for fiscal year 1963; we actually realized savings of almost \$1.4 billion. Since the results of our program were so superior to those which I had predicted last January, I asked that still higher targets be established by the military departments and Defense agencies for future years. As a result, we now are aiming at a recurring annual reduction in overall costs of \$4 billion by fiscal year 1967. The detailed goals and accomplishments of our cost reduction program are shown on Table 22.

Because of the accomplishments to date, and those now planned, the fiscal year 1965 budget request reflects estimated savings of \$2.4 billion resulting from three principal categories of actions:

	Estimated Savings Reflected in FY 1965 Budget (Billions)	Savings Goal By FY 1967 (Billions)
1. Buying only what we need	\$ 1.2	\$ 1.7
2. Buying at the lowest sound price	0.6	1.1
3. Reducing operating costs	0.6	1.2
Total	\$ 2.4	\$ 4.0

While our fiscal year 1965 budget request already reflects anticipated savings amounting to more than half of our total five-year cost reduction objective, I do not want to leave you with the impression that this objective will be easily accomplished or that we can relax our efforts in the slightest if we are to achieve it. Furthermore, President Johnson has added even greater emphasis and urgency to our efforts, and to those of the 7,500 principal defense contractors to whom he wrote on December 2, 1963 calling on them to seek ways of reducing defense procurement costs.

I would like to highlight for you some of the savings we have made - and hope to make in the future - without sacrificing our essential military readiness:

### A. BUYING ONLY WHAT WE NEED

#### 1. Refining Requirements Calculations

Procurement of weapons, parts, supplies, and services takes more than

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55 percent of each defense dollar. Thus our greatest potential for making savings lies in reducing the types and quantities of items purchased for defense inventories. These inventories currently comprise some four million different items. As shown in Table 22, we realized savings of \$769 million in fiscal year 1963 by our management actions in this area.

The fiscal year 1965 budget request reflects anticipated savings of \$1.1 billion as a result of more refined requirements calculations. For example:

- a. Major equipment requirements have been reduced by more careful analysis of the quantities needed to equip our forces. For example, the Secretary and Chief of Staff of the Army have examined the Tables of Organization and Equipment for each type of Army division and have found ways of cutting quantitative requirements on dozens of end items, including radios, guns and vehicles, without detriment to combat capability. By increasing the efficiency of its overhaul and repair depots, the Air Force has halved the out-of-service maintenance time for aircraft, missiles and other major equipment, thus reducing the total number of end items required. The Navy has significantly reduced its requirements for certain air defense weapons by calculating its needs on the basis of the specific mission to be performed in each case. As a result, requirements for SPARROW and SIDEWINDER in fiscal years 1964 and 1965 were adjusted downward by approximately 45 percent.
- b. Even more dramatic progress has been made in cutting both initial and replacement purchase requirements for parts and supplies. For fiscal year 1965, the Air Force's budget reflects a reduction of about \$476 million in total obligational authority because of more precise requirements calculations for aircraft and missile system spares, stepped-up actions to reduce stock levels, and a better reporting system which enables a more effective utilization of assets on hand and at operating bases world-wide. The Army has introduced the new Uniform Issue Priority System permitting reduction in order and shipping time by an average of 15 percent, thereby reducing the size of the inventory that must be maintained. The Navy was able to reduce its inventory requirements for spares, establishing more realistic stock support of first line aircraft by providing for priority processing of repairable items, and cutting procurement leadtimes.

During the past year we have also added new projects to our cost reduction program which are designed to reduce the cost of acquiring technical manuals and other technical data, and to minimize Government investment in production equipment and facilities as shown on Table 22. This latter cost reduction project is based on more vigorous application of our policy of encouraging contractors to furnish their own general purpose equipment and facilities.

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## 2. Increased Use of Excess Materiel in Lieu of Procurement

Last year we transferred to productive use over \$1.2 billion of excess and long supply inventories, \$183 million more than in fiscal year 1961. The total of excess and long supply stocks on hand was thereby reduced to \$11.9 billion - the lowest level since the Korean emergency. Our goal is to increase this rate to \$1.4 billion annually by the end of fiscal year 1965. Re-utilization of these stocks is a genuine avoidance of cost since under our approved five-year force structure we would otherwise have to procure the same or similar items, either now or in the future.

Under the direction of the Defense Supply Agency, central screening offices have been established to promote the re-use of all types of excess equipment, machine tools and supplies among Defense activities. Recent examples of re-utilization actions, chosen at random from among the hundreds occurring regularly, are the following:

- The Army received 31 aircraft engines from the Air Force, saving ..... \$ 800,000
- The Navy received from the Army two fire control systems for use as components in the manufacture of electronic countermeasure equipment, avoiding additional procurement of ..... 884,458
- The Air Force reclaimed parts from ten excess missiles for use on another weapon, avoiding additional procurement of ..... 3,034,392
- DSA modified excess trousers to permit issue in lieu of new procurement, saving ..... 451,573

## 3. Eliminating Goldplating Through Value Engineering

We know that procurement of excessive quality is just as wasteful as procurement of excessive quantities. During the past several years, new parts and components have been entering our supply system - to support new weapons and other end items - at the rate of over 45,000 per month. Many of these items are designed and specifications for them established before we have the benefit of experience in actual use. As a consequence, such items frequently incorporate performance features (e.g., capacity, strength, durability, temperature resistance and light weight) in excess of those necessary to the proper functioning of the item. This "gold-plating" needlessly increases the cost of some items by as much as two to ten times.

To reduce the waste caused by "gold-plating", we met with 1,200 representatives of industry last fall, and I wrote personally to the Presidents of 7,500 companies, inviting them to give our procurement

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specifications a most critical appraisal and to propose ideas for eliminating unnecessary qualitative requirements. As an inducement, we are offering our contractors a share of any savings resulting from acceptable proposals. Our own technical, engineering and procurement personnel are also being trained to search out such opportunities, and their performance in this regard will be taken into account in making future promotions. A manual has been published and formal classroom training is being conducted to assist in meeting these objectives.

In fiscal year 1963, the cost of military hardware was reduced by \$72 million, with no sacrifice in required performance, as a result of the "value engineering" ideas developed by defense contractors and our own technical staffs. During fiscal year 1965 we hope to double these savings to \$145 million.

The potential for savings in this area is well illustrated by the following examples of recent value engineering actions:

	Unit Cost		Savings on	
	Before Redesign	After Redesign	Annual Procurement	
1. Cooling system on F8D Crusader aircraft: Two-piece fan cooling device substituted for six-piece air conditioning system		\$1,243.00	\$253.00	\$ 89,100
2. Oil seal for F-106 engine: A one-piece seal substituted for a two-piece magnetic seal	56.47		2.97	39,788
3. 105 mm. cartridge case: Steel substituted for brass, and two parts eliminated	10.43		6.80	555,000
4. Diode used in test equipment: commercial diode substituted for special military diode.	10.00		1.89	115,000
5. Tweezers for first-aid kits: Plated carbon steel substituted for surgical stainless steel.	0.50		0.15	85,000

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#### 4. Inventory Item Reduction

Another way in which procurement requirements are inflated is through the unintentional addition of duplicate items to our stores catalogs as a result of incomplete information on new items or unnecessary variations in specifications such as color, method of packing, etc. These duplicate items receive separate Department of Defense catalog numbers and are separately procured and separately stored in our warehouses. This results in excess inventory and adds at least \$100 per item per year to our management costs. During the past two years, the military departments have assigned special task forces to screen out duplicate and unnecessary items, with the result that 434,000 more items have been purged from our supply systems. At an average savings of \$100 per item, this achievement represents a cost avoidance of \$43 million per year. For example, in the case of hand tools, over one-third of the 25,000 items previously stocked in our inventory have been marked for elimination. Our aim is to continue a high rate of item elimination during fiscal year 1965 and in future years. A special effort will be made to ensure that whenever possible our design contractors choose items already in the Defense catalog.

#### B. BUYING AT THE LOWEST SOUND PRICE

The second major objective of the cost reduction program is to buy at the lowest sound price. To this end, our efforts are designed: first, to increase the degree of competition in the procurement process by shifting whenever possible from non-competitive to competitive procurement; and second, to maximize the incentives to us and to our contractors to increase efficiency by shifting away from cost-plus-fixed-fee contracts to fixed price or price-incentive contracts. As shown on Table 22, our goal is to realize by fiscal year 1967 annual savings of about \$1.1 billion through these two basic improvements. Actions initiated in fiscal years 1962 and 1963 will, when completed, achieve over 60 percent of this objective. We believe that our fiscal year 1965 budget is about \$600 million less than it otherwise would have been had these shifts in the form of procurement not been achieved since calendar year 1961.

##### 1. Shifting from Non-competitive to Competitive Procurement

In 1961, we studied a large number of General Accounting Office and congressional committee reports which concluded that millions of dollars were being wasted because of the failure to obtain price competition more extensively in the procurement of spare parts and smaller end items. Our own analysis of procurement procedures fully confirmed those conclusions, and as a result, I instructed the military departments to increase the proportion of the total value of contracts awarded on the basis of price competition. The departments responded by:

Setting quotas for the improvement to be achieved by each major buying office in fiscal years 1963, 1964, and 1965.

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Planning the principal end items expected to be procured during the three-year period, specifying the method of procurement and the type of procurement contract to be used. Such advance planning is essential to ensure that the drawings and specifications required for competition are on hand when needed.

Adopting standard procedures under which special research teams select - up to one year in advance - high value parts and components which can be safely "broken out" from the end item for separate competitive procurement.

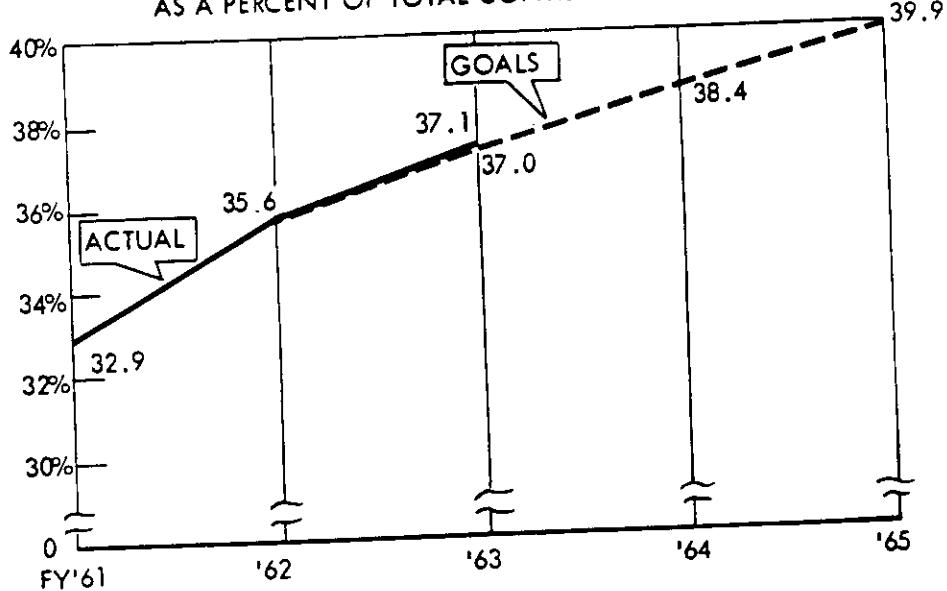
Establishing tri-Service schools at Fort Lee, Virginia and Dayton, Ohio to train personnel in improved procurement techniques. Over 19,000 procurement personnel will have been sent to these schools in the three year period ending June 30, 1964.

As a result of these efforts, both the proportion and the volume of competitive procurement have increased significantly:

<u>Fiscal Year</u>	<u>Awarded by Price Competition</u>	
	<u>Volume</u>	<u>% of Total</u>
1961	\$ 8.1 billion	32.9
1963	10.8 billion	37.1

By the end of fiscal year 1965, we hope to raise the proportion of price competition to nearly 40 percent of total dollar awards, as shown below:

CONTRACTS AWARDED ON BASIS OF COMPETITION  
AS A PERCENT OF TOTAL CONTRACT AWARDS



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At the end of fiscal year 1963, we analyzed a large number of cases where price competition had been obtained. We concluded that, on the average, 25¢ of each dollar of procurement converted from "sole source" to price competition was being saved - and that savings in fiscal year 1963 amounted to \$237 million:

Estimated Savings From Increased  
Price Competition FY 1963  
(Millions)

Aircraft Components & Parts	\$ 50
Missile Components & Parts	34
Electronic & Communications Items	52
Vehicles	28
Ships & Components	58
Weapons & Ammunitions	7
Supplies & Services	8
Total	<u>\$ 237</u>

Here are some of the more dramatic examples of price savings actually achieved:

<u>Item</u>	<u>Non-Competitive Price</u>	<u>Competitive Price</u>	<u>Savings on First Competitive Procurement</u>
Receiver Transmitter	\$ 2,677.00	\$ 1,091.00	\$ 1,271,920
Radio Receiver	1,519.00	1,034.00	741,655
Gasoline Engine	453.00	325.00	409,600
Radiosonde (high altitude weather detection)	170.00	76.70	565,000
Fluid Filter	79.40	26.74	59,862
Missile Launcher Hook	5.97	3.45	32,210

Another innovation in the past year has been the use, in selected cases, of multi-year competitive contracts for end items on which there is a firm requirement for continuous production over two or more years. This technique produces additional price savings by avoiding annual "start-up" costs and giving the winning producer an incentive to offer a lower price based on the efficiencies he can achieve over a longer production run.

Looking to the future, we are calling on our principal prime contractors to re-examine their own procurement practices and to set goals for increasing the volume of subcontracts placed on the basis of price competition. We believe that this may provide a fertile source of additional price reductions to the Government - about half the value of all prime contracts is subcontracted.

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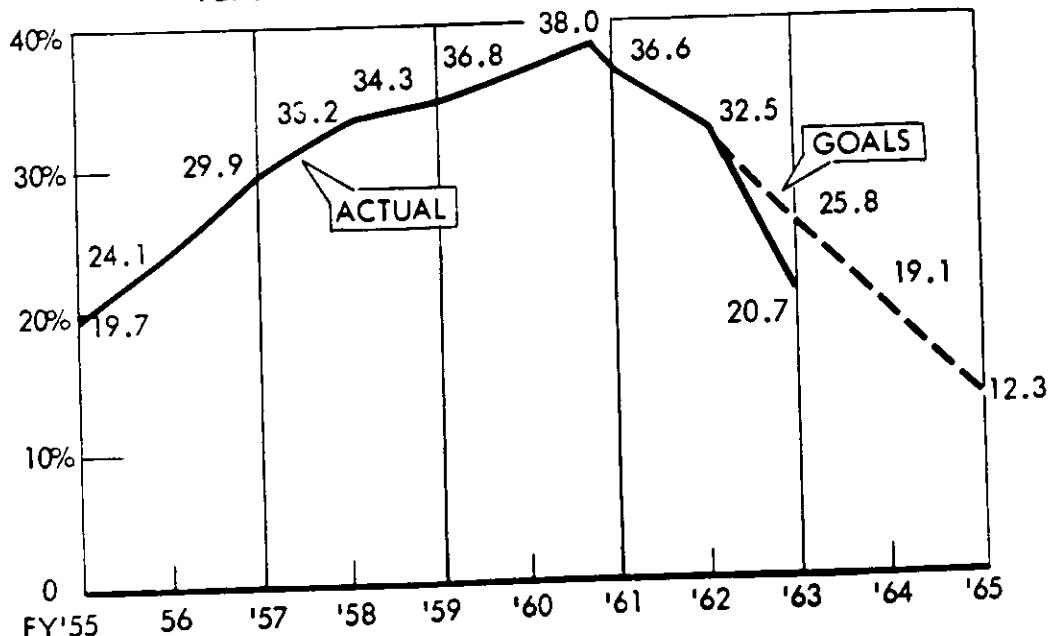
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2. Shifting From Cost-Plus-Fixed-Fee (CPFF) to Fixed-Price and Incentive Contracts

A major cause of cost overruns on major development programs has been the lack of detailed advance planning which is an absolute prerequisite for the close pricing of contracts and the close supervision of contractor performance. In great part, this inadequate planning and control in the past was made possible by the widespread use of CPFF contracts, under which we pay a fixed fee and reimburse the contractor for whatever allowable costs he incurs. Such open-ended arrangements also encourage premature initiation of development projects. Moreover, they provide no incentive for us to define precisely in terms of performance characteristics, delivery dates and costs what it is we wish to procure.

Between fiscal years 1955 and 1961 the volume of CPFF contracts almost doubled, reaching a peak rate of 38 percent of the total value of awards in the first nine months of fiscal year 1961. It was clear that prompt and firm action would have to be taken to reverse this trend and, accordingly, the military departments were directed to limit CPFF contracts primarily to exploratory research and study projects. As a result the value of such contracts dropped to 20.7 percent of total awards in fiscal year 1963, representing a shift of more than \$4 billion of contracts from CPFF. The trend this fiscal year is still downward, and our goal by the end of fiscal year 1965 is to reach and maintain a rate of 12.3 percent, as shown in the following chart.

COST PLUS FIXED FEE CONTRACTS AS A PERCENT OF TOTAL CONTRACT AWARDS



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For every dollar shifted from CPFF to a fixed-price or price-incentive form of contract, we estimate that we save ten cents by increasing efficiency and by reducing the huge cost overruns which have characterized many development programs in the past. Thus we believe that the sharp reduction in the use of CPFF contracts through fiscal year 1963 has made possible a reduction of at least \$400 million in the fiscal year 1965 budget.

Helping to achieve this sharp reduction in CPFF contracts are a number of basic improvements in the management of weapons system developments projects. These include:

- The more extensive use of the "project definition" phase during which as much as one year is spent in planning projects prior to award of major contracts. For example, a one-year "project definition" phase preceded the initiation of the \$800 million TITAN III program.
- The use of Performance Evaluation and Review Techniques (PERT) which identify the thousands of important events or decision points which must be monitored continuously both by Department of Defense and its contractors during the course of a major development project. In the TITAN III program, for example, bi-weekly reports are received from the prime systems contractor on 2,500 key events indicating cost and time progress.
- The organization of full-time project management offices within the military departments to supervise the execution of large weapons projects. Currently there are over 100 project management offices in the Department compared to only 50 in 1961.
- The refinement of profit negotiation techniques which permit target profits to be based on the actual effort and risk assumed by the contractor, instead of on historical percentages which did not vary appreciably from contract to contract.
- A new "performance scorecard" recording how well a contractor actually performs with respect to his contractual commitments on major development projects. This record will be a significant factor in determining future source selections.
- A 50 percent reduction in value of letter contracts outstanding during the past 12 months - with a goal of a two-thirds reduction to be attained by June 30, 1964. Accomplishment of this goal would reduce such contracts from their peak level of \$3 billion to less than \$1 billion.

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### C. REDUCING OPERATING COSTS

The third key objective of the cost reduction program is to increase efficiency of supply, maintenance, transportation and communications services. As shown on Table 22, our five-year goal in this area is recurring annual savings of \$1.2 billion. Actions initiated in fiscal years 1962 and 1963, when completed, will achieve about half of this objective. Our fiscal year 1965 budget request reflects over \$600 million of reductions resulting from the following kinds of actions:

#### 1. Terminating Unnecessary Operations

President Kennedy, in March, 1961, directed that I move promptly to identify and eliminate bases and installations no longer needed for the support of long-term military requirements and President Johnson has strongly reaffirmed this directive.

As of the end of fiscal year 1963, we had made decisions and announced base closing actions which, when completed, will produce \$336 million in annual savings. Since then, additional decisions have been announced which, ultimately, will increase the level of savings to \$479 million annually - 80 percent of our fiscal year 1967 goal of \$600 million. As a result of our efforts to date, we were able to reduce the fiscal year 1965 budget request for the operation of installations by \$358 million. These are net savings which reflect the absorption of one-time closing and relocation costs.

In addition to these savings, the termination of unnecessary operations announced to date will produce the following results:

• Real Estate Released	645,600 acres
• Industrial Plants With Commercial Potential Made Available for Sale	58 plants
• Positions Eliminated	71,430

In 1961 we established a full-time Office of Economic Adjustment to work with employees and communities affected by these reductions and base closings. Based upon the experience gained in these efforts during the past three years, we believe that, by careful advance planning and an extensive freeze on new hiring, we will be able to assure a job offer to every employee whose job is eliminated. If the new job requires a move to another Government installation, our policy in the case of career employees and their families, is to pay the expenses involved.

#### 2. Consolidating and Standardizing Operations

This project is concerned with eliminating unnecessary overhead and personnel expense through: the consolidation of common support functions previously performed separately by the military departments; and the

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standardization of procedures and operating practices among the military departments.

a. Defense Supply Agency. The most notable savings from consolidated operations have resulted from the creation in October 1961 of the Defense Supply Agency (DSA), to buy, store and issue common items. The DSA by June 30, 1964 will have assumed central management of 1.5 million items with an annual sales of \$1.8 billion. In fiscal year 1963 DSA operated with 3,475 fewer civilian employees than were formerly required for these same functions, saving \$31 million. In fiscal year 1965, DSA's civilian staff will be 7,514 fewer than that required for the same functions prior to the establishment of DSA, producing a direct reduction in the fiscal year 1965 budget of \$54 million. In addition, by consolidation and better management of its inventories, DSA, by June 30, 1965, will draw down its total inventory investment by \$512 million from pre-DSA levels.

b. Simplification and standardization of procedures. Cost reduction goals have been set by each military department for savings from other actions to simplify and standardize procedures. These actions include the consolidation of 81 transportation documents into one, which became effective on October 1, 1963; the consolidation of 16 different requisitioning systems into one uniform system on July 1, 1962; the purchase of automatic data processing equipment for proven business applications in lieu of renting such equipment; further mechanization of mass paperwork procedures, etc. By fiscal year 1967 recurring annual savings of \$101 million are expected to accrue from these actions. The fiscal year 1965 budget request reflects anticipated savings of \$20 million in this area.

c. We have just completed an intensive study of the contract administration services activities of the military departments. More than 400 field offices employing in excess of 43,000 people are presently engaged in this work throughout the Department of Defense. As a result of this study, we are now revising the Armed Services Procurement Regulations to provide for uniform policies and procedures covering many functions such as the inspection and acceptance of materiel, the evaluation of contractors' ability to perform under government contracts, the approval of contractors' accounting and purchasing systems, the security clearance of contractors' facilities and personnel, and the on-the-spot analysis of cost proposals.

We are also undertaking a pilot test to evaluate the feasibility of consolidating the contract administration services of the military departments in specific geographic areas. We hope by the middle of this year to have gathered sufficient operational experience to determine the feasibility of consolidating these field activities throughout the system. I feel confident that substantial operational and cost benefits, to both government and industry, can be derived from these efforts.

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### 3. Increasing Operating Efficiency

The final group of cost reduction projects is designed to reduce the operational costs of a variety of logistical support functions. The following savings have been made in the fiscal year 1965 budget:

- a. Communications systems costs - a reduction of \$49 million, attributable to the reduced cost of procuring leased lines services, and more effective use of existing Defense and commercial communications services. Recurring annual savings of \$66 million are targeted by fiscal year 1967.
- b. Transportation and traffic management - a reduction of \$12 million, attributable to increased use of "economy" class air travel, decreased cost of household goods shipments, and more economical use of airlift for cargo movements. Recurring annual savings of \$24 million are targeted by fiscal year 1967.
- c. Equipment and non-combat vehicle maintenance management - a reduction of \$131 million, attributable to better management resulting from improved cost accounting; improved planning and scheduling procedures; more comprehensive analysis of failure data; and increased use of civil service employees in lieu of contract technicians. Annual savings of \$340 million are planned by fiscal year 1967, to be obtained primarily by achieving higher standards of productivity for the one million employees engaged in these operations at over 2,000 locations world-wide.
- d. Real property and housing management - a reduction of \$18 million, attributable to improved cost accounting and employee performance standards, reductions in the cost of purchased utilities, consolidation of public works functions, and greater economy in execution of repairs and alterations. Annual savings by fiscal year 1967 are targeted at \$63 million.

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## XII. MILITARY PERSONNEL COMPENSATION AND PERSONNEL CEILINGS

### A. MILITARY COMPENSATION

Last year in discussing the military pay raise, I stated that it was our conclusion that, in the future, military compensation rates should be reviewed annually and changes proposed when necessary to keep them in balance with increases in wages and salaries in the civilian economy. This conclusion was underscored by President Kennedy when he signed the pay bill last October:

"In supporting this legislation before the Congress, this Administration pledged to use its best efforts to assure that in the future military compensation will keep pace with increases in salaries and wages in the civilian economy. I think that I speak on behalf of all of us when I say that is a pledge we intend to keep."

In accordance with this pledge, we have adopted the following policy:

#### Annual Review of Military Pay of Active Duty Personnel \*

Except for periodic reviews of the entire structure of military compensation which may be expected to take place approximately every five years, military compensation will be reviewed annually and adjustments will be made according to the following formula:

1. Subsistence Allowance. The Subsistence Allowance will be adjusted annually to ensure that it retains a constant relationship\*\* to the food element of the Consumer's Price Index, except that no adjustment will be made until this element moves three points.

2. Basic Allowance for Quarters. The Basic Allowance for Quarters will be adjusted annually to ensure that it retains a constant relationship\*\* to the housing elements of the Consumer's Price Index, except that no adjustment will be made until these elements move three points.

#### 3. Basic Pay:

a. Officers. The basic pay of officers will be adjusted annually to ensure that it retains a constant relationship\*\* to an index based upon the BLS survey of the

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salaries of Professional, Administrative and Technical employees, except that no adjustment will be made until the index moves two points.

b. Enlisted, over 2 years of service. The basic pay of enlisted personnel with more than 2 years of service will be adjusted annually to ensure that it retains a constant relationship\*\* to an index of technical, clerical and wage board wages (the index shall be based on the BLS National Survey of Technical and Clerical Pay and the Army-Air Force Wage Board pay scales), except that no adjustment will be made until the index moves two points.

c. Enlisted, under 2 years of service. The basic pay of enlisted personnel with less than 2 years of service will be adjusted annually to ensure that it retains a constant relationship\*\* to the Consumer's Price Index, except that no adjustment will be made until the index moves two points.

4. Retired Personnel. The retired pay of personnel will be adjusted annually, effective April 1 for those personnel who were entitled to retired pay before January 2 of that year, to reflect the increase in the annual average of the Consumer Price Index for the preceding calendar year over that for the calendar year for which the most recent adjustment was made, except that no adjustment will be made unless the index increases three percent or more.

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- \* The compensation of Reserve personnel will be reviewed and adjusted at approximately five-year intervals, concurrently with the periodic reviews of the total military pay structure.
- \*\* The relationships to be maintained will be those of:
  - . Subsistence Allowance of October 1, 1963, and the Consumer's Price Index of July 1, 1961.
  - . Quarters Allowance of January 1, 1963 and the Consumer's Price Index of January 1, 1961.
  - . Basic Pay of October 1, 1963 and the indexes of July 1, 1962. Adjustments of basic pay to maintain the prescribed relationships will take account of the amount by which increases in base pay of military personnel raise the liabilities for

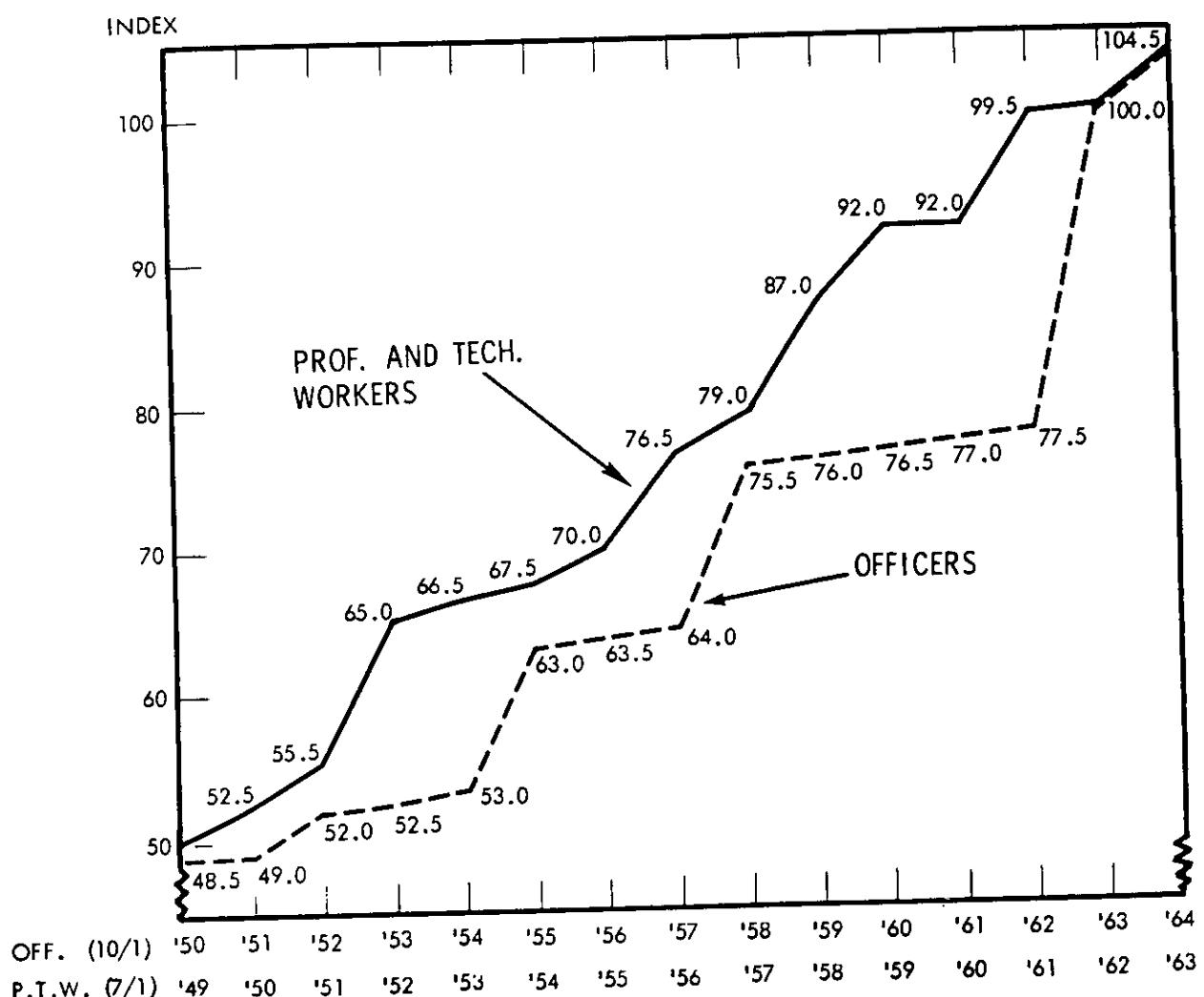
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retirement allowances by more than comparable adjustments for civilian personnel.

We should not again permit military pay to lag for so long a time behind compensation levels in the civilian economy. The chart below shows what has happened to officers pay over the last fifteen years.

### INDEXES OF OFFICER ADJUSTED BASIC PAY AND ADJUSTED EARNINGS OF PROFESSIONAL AND TECHNICAL WORKERS\*



\* BOTH INDEXES ADJUSTED TO REFLECT INCREASES IN RETIREMENT BENEFITS  
ASSOCIATED WITH PAY INCREASES.

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The application of these proposed policies to the present compensation scales would now require an increase in basic pay of 3 percent for officers and 2.4 percent for enlisted personnel with over two years of service. No increase would be required in any of the other categories of military personnel compensation. Accordingly, \$143 million has been included in the fiscal year 1965 Defense budget under proposed legislation, on the assumption that these increases in basic pay would become effective on October 1, 1964.

Similar comparability adjustments for civilian career employees have been recommended by the President and provision has been made on a government-wide basis elsewhere in the fiscal year 1965 budget.

#### B. PERSONNEL REDUCTIONS

As a result of the Five-Year Cost Reduction Program discussed earlier, and other actions we have taken, the overall number of military and civilian personnel is being reduced.

##### 1. Civilian Personnel

At the direction of both President Kennedy and President Johnson, the Department of Defense during the last year and a half has made a major effort to reduce civilian employment. Since the end of the Korean War, the low point in the number of civilians employed directly in the military functions activities of the Department of Defense was about 1,004,000 in December of 1960. As a result of the Berlin buildup, the number increased to 1,042,000 by August, 1962. In the fiscal year 1964 budget sent to the Congress a year ago, civilian personnel strength was estimated at 1,033,000 for end fiscal year 1963; and 1,023,000 for end fiscal year 1964. Our goal for the end fiscal year 1965 is now 990,000 - about 33,000 less than the previously planned end fiscal year 1964 strength. This will be the first time since the beginning of the Korean War in 1950 that direct civilian employment will total less than 1,000,000.

We are already well along toward the lower target. At the end of November, 1963, civilian personnel strength stood at about 1,012,000 and the June 30, 1964, goal has been reduced to 1,007,000. Thus, civilian employment is already below the August, 1962 peak, and will be 52,000 below that peak by June 30, 1965. This includes 9,900 foreign nationals who are under Department of Defense ceilings. In addition, the number of foreign nationals working under master contracts with foreign countries will be reduced by 30,000 below the June 30, 1963, strength as a result of redeployments and directed manpower reductions.

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## 2. Military Personnel

Total active duty military strength planned for the end of fiscal year 1965 will be about 6,100 less than the number planned for the end of the current fiscal year, and about 16,950 less than end fiscal year 1963. As shown in the table below, Air Force strength will continue to decline primarily as a result of the phase-out of the B-47's. Navy strength will increase somewhat as additional POLARIS submarines are commissioned, and the Army and Marine Corps will continue at about their present levels.

	<u>End FY 1963</u> <u>Actual</u>	<u>End FY 1964</u> <u>Estimated</u>	<u>End FY 1965</u> <u>Planned</u>
Army	975,155	971,527	973,999
Navy	664,207	669,992	677,896
Marine Corps	189,683	190,000	190,060
Air Force	868,644	855,302	838,766
Total DoD	2,697,689	2,686,821	2,680,721

Overseas Headquarters personnel will be reduced by 15 percent by June, 1964, a reduction of over 2,500 personnel, primarily military. A review of Military Assistance Advisory groups is expected to result in at least a 9 percent reduction, about 1,113 personnel by June, 1964.

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### XIII. FINANCIAL SUMMARY

The programs proposed for fiscal year 1965 including Military Assistance, Military Construction, Military Family Housing and Civil Defense, aggregate \$52,427,928,000 in total obligational authority. A summary by major programs, for fiscal years 1962, 1963, 1964, and 1965 is shown in Table 1.

Of the \$52,427,928,000 in obligational authority required to finance the 1965 program:

- \$1,129,561,000 would be obtained from prior year funds available for new programs, including balances brought forward and recoupments anticipated during the year.
- \$200,000,000 would be obtained by transfer from the working capital funds of the Department of Defense in lieu of new appropriations, and
- \$218,367,000 would be obtained from anticipated reimbursements which would be available to finance new programs leaving, therefore,
- \$50,880,000,000 of new obligational authority, the amount requested in the President's fiscal year 1965 budget. A detailed tabulation relating the appropriation accounts to the major program accounts, and the total obligational authority to the new obligational authority requested of the Congress in the 1965 budget, is shown on Table 24 (comparable data for 1964 are shown on Table 23).

Of the \$50,880,000,000 of new obligational authority, \$17,185,300,000 is requested to be authorized for appropriation under the provisions of Section 412(b) of Public Law 86-149, as amended. Of this amount: \$10,613,300,000 is for procurement of aircraft, missiles, and naval vessels; and for the first time as required by last year's amendment, \$6,572,000,000 is for all research, development, test, and evaluation.

The specific amounts for each Service and each category are shown in the Bill which the Senate Armed Services Committee will consider. Tables 27 through 34 provide detailed lists supporting the authorization for fiscal year 1965. Table 25 compares the authorization amounts requested for procurement in fiscal year 1965, and the amounts authorized and appropriated for fiscal year 1964.

With respect to the total budget, of the \$50,880,000,000 of new obligational authority requested, the following amounts will be presented separately:

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\$1,000,000,000 for Military Assistance  
\$1,168,000,000 for Military Construction  
\$711,000,000 for Military Family Housing  
\$358,000,000 for Civil Defense, and  
\$172,000,000 for Military Compensation (including \$29,000,000  
for Uniform Ration).

Provision for a number of other items of proposed legislation - the largest of which are the Uniform Career Management (\$6,300,000) and the Two-year ROTC Program (\$4,100,000) - totaling \$13,300,000, is made within the Government-wide "Allowances for Contingencies."

Thus, the bill now before the Senate Subcommittee on Department of Defense Appropriations would provide \$47,471,000,000 in new obligational authority and \$200,000,000 to be derived by transfer from working capital funds.

In addition, we are requesting a fiscal year 1964 Supplemental Appropriation totaling \$1,087,400,000. We have carefully reviewed all of the additional costs arising from new legislation enacted by the Congress last year and we will absorb as much of them as possible, using available funds. Of the \$1,087,400,000:

\$853,000,000 is to meet the costs of the increases in military pay and allowances enacted by the Congress, and made effective October 1, 1963. The Congress authorized the expenditure of funds to cover the pay increase, but no additional funds were appropriated at that time;

\$234,400,000 is to meet that part of the reduction made by the Congress in the Military Personnel and Retired Pay appropriations which cannot be absorbed. The Congress cut \$362,000,000 from the budget estimates with the understanding that if the funds provided were not adequate to finance the programmed military strengths which it had approved, the Department of Defense was to submit a request for the necessary additional funds.

Again this year, we strongly urge the Congress to continue in the 1965 Appropriation Act the authorities provided by Sections 536 and 512(c) of the 1964 Appropriation Act. Section 536 authorizes the Secretary of Defense to transfer up to an additional \$200,000,000 from any appropriation of the Department of Defense to improve further the readiness of the Armed Forces, including the reserve components. Section 512(c) permits the Secretary of Defense, upon determination by the President that it is necessary to increase the number of military personnel on active duty beyond the number for which funds are provided, to treat the cost of such an increase as an excepted expense. The continuing uncertainty that we face around the globe makes the inclusion of these two sections in the new appropriations act most important.

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We are also requesting the inclusion of a new provision which would permit cash transfers between the various revolving funds. This additional flexibility would permit us to operate with a lower cash balance in each fund by allowing us to meet emergency needs in any one fund, from the resources of the other funds.

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TABLE 1 - FINANCIAL SUMMARY  
(In Billions of Dollars)

	FY 61	FY 62 Orig.	FY 62 Final	FY 63	FY 64	FY 65
Strategic Retaliatory Forces		\$ 7.6	\$ 9.1	\$ 8.4	\$ 7.3	\$ 5.3
Continental Air & Missile Defense Forces		2.2	2.1	1.9	1.9	1.8
General Purpose Forces	14.5	17.5	17.8	18.1	18.1	18.5
Airlift/Sealift Forces	.9	1.2	1.4	1.3	1.4	
Reserve and Guard Forces	1.7	1.8	1.8	2.0	2.0	
Research and Development	3.9	4.2	5.1	5.4	5.5	
General Support	11.4	11.8	13.2	13.9	14.8	
Retired Pay	.9	.9	1.0	1.2	1.4	<sup>a/</sup>
Civil Defense		.3	.1	.1	.4	
Military Assistance	1.8	1.8	1.6	1.1	1.1	
Proposed Legislation for Military Compensation, etc.						.2
Total Obligational Authority <sup>b/</sup>	\$46.1	\$44.9	\$51.0	\$52.2	\$52.5	\$52.4
Less Financing Adjustments	3.0	1.3	1.5	1.1	1.5	1.5
New Obligational Authority	\$43.1	\$43.7	\$49.4	\$51.1	\$51.0	\$50.9
Adjustment to Expenditures	+1.6	+1.0	-1.2	-1.1	+1.3	.3
Total Expenditures	<u>\$44.7</u>	<u>\$44.7</u>	<u>\$48.2</u>	<u>\$50.0</u>	<u>\$52.3</u>	<u>\$51.2</u>
TOA by Dept. and Agency						
Army	\$10.4	\$10.4	\$12.6	\$12.0	\$12.7	\$12.4
Navy	12.7	12.4	14.8	15.1	15.0	15.1
Air Force	19.9	18.5	19.8	20.7	20.5	19.8
Civil Defense		.3	.1	.1	.4	
Defense Agencies	.3	.4	.3	.9	1.1	1.3
Retired Pay	.8	.9	.9	1.0	1.2	1.4 <sup>a/</sup>
Defense Family Housing <sup>c/</sup>	.5	.5	.5	.7	.7	.7
Military Assistance	1.5	1.8	1.8	1.6	1.1	1.1
Proposed Legislation						.2
Total <sup>b/</sup>	<u>\$46.1</u>	<u>\$44.9</u>	<u>\$51.0</u>	<u>\$52.2</u>	<u>\$52.5</u>	<u>\$52.4</u>

Memo: Increases since FY 1961 in payments to retired personnel and in rates of compensation included above:

Increased Compensation Rate:

Military	\$	\$	\$ .1	\$ 1.2	\$ 1.7
Civilian			.2	.3	.4

Increased Payments to

Retired Personnel	.1	.1	.2	.4	.6
Total	<u>\$ .1</u>	<u>\$ .1</u>	<u>\$ .5</u>	<u>\$ 1.9</u>	<u>\$ 2.7</u>

<sup>a/</sup> The government's total "unfunded past service costs" of the military retirement program at current pay rates is estimated to amount to \$57.6 billion at July 1, 1964. The proposed pay increase will increase this by \$1.0 billion. In FY 65, it would require \$2.2 billion to fund "current service costs".

<sup>b/</sup> Excludes cost of nuclear warheads.

<sup>c/</sup> In 1961 and 1962 funds for this activity were appropriated to the military departments.

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TABLE 2 STRATEGIC RETALIATORY FORCES a/  
(End of Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69
<u>Bombers b/</u>									
B-52	555	615	630	630	630	630	630	630	630
B/EB-47	900	810	585	450	225				
B-58	40	80	80	80	80	80	78	76	74
Total Bombers	<u>1495</u>	<u>1505</u>	<u>1295</u>	<u>1160</u>	<u>935</u>	<u>710</u>	<u>708</u>	<u>706</u>	<u>704</u>

Air-Launched Missiles  
HOUND DOG

<u>Surface-to-Surface Msls c/</u>									
ATLAS	28	57	126	126	99	99	72	72	72
TITAN		21	67	108	108	108	108	54	54
MINUTEMAN I			160	600	800	750	610	480	400
MINUTEMAN II					200	390	620	800	
POLARIS	80	96	144	256	464	560	656	656	656
Total ICBM/POLARIS	<u>108</u>	<u>174</u>	<u>497</u>	<u>1090</u>	<u>147</u>	<u>1717</u>	<u>1836</u>	<u>1882</u>	<u>1982</u>

<u>Other</u>									
QUAIL	224	392	392	392	392	392	392	392	392
KC-135 d/	400	440	500	580	620	620	620	620	620
KC-97	600	580	340	240	120				
RB-47	90	45	30	30	30				
RC-135									
REGULUS	17	17	17	17	9				
PACCS									
KC-135									
B-47		18	36	36	36	36	36	36	36

Alert Force Weapons e/

Number of Weapons  
Megatons

- a/ The Multi-Lateral Force is still under discussion with our NATO Allies. Assignment of modern nuclear weapons of the U.K., France, or a "Multi-Lateral Force," to NATO in accordance with the terms of the Nassau Pact, may lead to adjustments in the U.S. force structure.
- b/ Numbers of aircraft do not include command support or reserve aircraft.
- c/ Numbers of Polaris missiles show cumulative numbers which will have been deployed as ships become operational and are deployed. The number on alert is reduced from this figure by overhaul and retrofit schedules and refit between patrols.
- d/ Excludes National Emergency Airborne Command Post and Post Attack Command and Control System aircraft.
- e/

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TABLE 3 - CONTINENTAL AIR AND MISSILE DEFENSE FORCES  
(Number at End of Fiscal Year)

	<u>FY 61</u>	<u>FY 62</u>	<u>FY 63</u>	<u>FY 64</u>	<u>FY 65</u>	<u>FY 66</u>	<u>FY 67</u>	<u>FY 68</u>	<u>FY 69</u>
<u>Surveillance, Warning &amp; Control a/</u>									
NORAD Combat Ops Ctr.	1	1	1	1	1	1	1	1	1
Combat Centers	8	8	8	7	7	7	7	5	5
Direction Centers g/									
BUIC Control Centers									
Search Radars									
DEW Radars									
DEW Extension Radars									
Aircraft f/									
Ships									
Offshore Radars									
AEW/ALRI Aircraft									
Ships									
SAM Fire Coord. Sys.									
Air National Guard									
Search Radars									
<u>Manned Interceptors b/</u>									
Air Force									
F-101									
F-102									
F-104									
F-106									
Navy									
F-4D									
Air National Guard c/									
F-86									
F-89									
F-100									
F-102									
F-104									
<u>Surface-to-Air Missiles</u>									
BOMARC d/									
NIKE-HERCULES (Reg) e/									
NIKE-HERCULES (ANG) e/									
NIKE-AJAX (ANG) e/									
HAWK (Reg) e/									

Warning (Missile Attack)

BMEWS Sites

2 2 2 3 3 3 3 3

a/ Includes CONUS, Alaska, Greenland, Iceland, and Canada.  
b/ Numbers of aircraft are obtained by multiplying authorized squadron Unit Equipment by number of squadrons.  
c/ Possessed aircraft.  
d/ BOMARC figures reflect missiles on launchers.  
e/ NIKE-HERCULES, AJAX, and HAWK reflect number of missiles authorized.  
f/ Excludes 11 aircraft in fiscal year 1961 and 10 aircraft in fiscal years 1962-68 in training units.  
g/ Excludes one combined combat and direction center in Canada.

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TABLE 4 - GENERAL PURPOSE FORCES - ARMY  
(End Fiscal Year)

FY 61 FY 62 FY 63 FY 64 FY 65 FY 66 FY 67 FY 68 FY 69

Divisions

Airborne  
Armored  
Infantry  
Mechanized  
Total  
Combat Ready  
Training

Brigades

Infantry Battle Grps

Armd Cavalry Regts

Other Artillery Bns

Other Combat Bns

Aviation Companies

Special Forces Grps

Missile Commands

S-S Missile Bns<sup>c/</sup>

REDSTONE  
CORPORAL-Separate  
CORPORAL-Organic  
SERGEANT-Separate  
SERGEANT-Organic  
PERSHING  
LACROSSE  
HONEST JOHN-Separate  
HONEST JOHN-Organic  
LITTLE JOHN-Separate  
LITTLE JOHN-Organic  
Total

Air Defense Btys<sup>d/</sup>

HERCULES  
HAWK  
Total

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TABLE 5 - ARMY RESERVE COMPONENTS PROGRAM

<u>Category</u>
On-Site Air Defense
Units to Reinforce Active Army
Two Brigades
Nine Brigades
Training & Base Units
6 Divs. & Their Subunits
2 Theater Reinforce Divs. & Their Subunits
Support for Other
Other Divisions
Nondivisional Units
Nine Command Hq. Divisional
Priority Reinforcement
TOTAL

- a/ Includes 78,200
- b/ Estimates. Unit status until objective is met
- c/ Changes in authorized divisional
- d/ The actual reserve
- e/ Personnel authorized for FY 196

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TABLE 6 - ARMY PROCUREMENT  
(TOA, \$ Millions)

UE/1B/2 IROQUOIS  
CH-47F CHINOOK  
LOR  
OH-13/23 SIOX/RAVEN  
OV-10 HORNET  
CV-2 CAYUSE  
Training Helicopters  
Aircraft Inv. Trainer  
Spares & Repair Parts  
All Other Items  
    Total Aircraft

PENSHING  
SS-11  
RELENT  
HOBART JOHN  
SHILLELAGH  
LANCE  
BAV  
HETZLER  
MAGLIS  
MILLER JOHN  
SERGEANT  
PATRIOT  
Spares & Repair Parts  
All Other Items  
    Total Missile. <sup>a/</sup>

155mm S. F. Howitzer  
M-578 Lt. Recovery Veh.  
XM881 Gen. Sheridan  
M-111 Peri. Carrier  
Mortar Carriers, S.F.  
Command Post Vehicle  
M-60 Tank  
Combat Engineer Vehicle  
Rifle  
M-60 Mact. Gun  
M-73 Mach.Gun  
C S.P. Howitzer  
DAVY CROCKETT  
M-114 Recon. Vehicle  
All Other Items  
    Total Weapons & Combat Vehicles

Truck, 1/4-ton  
Truck, 1-ton  
Truck, 2-ton  
Truck, 5-ton  
Truck, Tractor, 10-ton  
Semi-Trailer, 10-ton  
Heavy Equipment Transporter  
All Other Items  
    Total Tactical & Support Vehicles

SEASIDE  
AV/VR/RC Radios  
Chem. Security Equip.  
All Intell. Equip.  
AIDS  
C4/PRO-24 Panel  
All Other Items  
    Total Communication & Electronic

105mm HE Proj., M-370, XM-4102/M-313  
Projectiles, 105mm, HE, M-371  
Projectiles, 82mm, HE, XM-6102  
7.62mm Cartridges  
All Other Items  
    Total Ammunition

OTHER SUPPORT EQUIPMENT

PRODUCTION BASE PROGRAM  
TOTAL ARMY PROCUREMENT

<sup>a/</sup> Cost data includes ground support equipment.  
<sup>b/</sup> Combined with SS-11 in FY 1961 and FY 1962.  
<sup>c/</sup> Quantity in thousands.  
<sup>d/</sup> Quantity in millions.

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TABLE 7 - GENERAL PURPOSE FORCES - NAVY  
(End Fiscal Year)

FY 61 FY 62 FY 63 FY 64 FY 65 FY 66 FY 67 FY 68 FY 69

Attack Carriers

Enterprise  
Forrestal  
Midway  
Essex  
Total

Attack Carrier Groups

Fighter Bombers  
F3B/F6A  
F8A/B/C/D  
F8E  
F-4B  
F-111B  
Total

Attack

A-1  
A-4B  
A-4C  
A-4E  
A-6A  
VAL  
Total

Heavy Attack

A-5A  
A-3B  
Total

Recon/Intelligence

RF-8A/RA-3B  
EA-3B  
EC-121  
RA-5C  
Total

Fleet Early Warning

E-1/EA-1/EC-1  
E-2A  
Total

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69
Enterprise									
Forrestal									
Midway									
Essex									
Total									
F3B/F6A									
F8A/B/C/D									
F8E									
F-4B									
F-111B									
Total									
A-1									
A-4B									
A-4C									
A-4E									
A-6A									
VAL									
Total									
A-5A									
A-3B									
Total									
RF-8A/RA-3B									
EA-3B									
EC-121									
RA-5C									
Total									
E-1/EA-1/EC-1									
E-2A									
Total									

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TABLE 7 - GENERAL PURPOSE FORCES - NAVY (Cont'd)  
(End Fiscal Year)

FY 61 FY 62 FY 63 FY 64 FY 65 FY 66 FY 67 FY 68 FY 69

Replacement Groups

Fighter Bombers

F-6A/F3B  
F-8A/B/C/D  
F-8E  
F-4A/B  
F-111B

Total

Attack

A-1  
A-3  
A-4A/B/C  
A-4E  
A-6A  
VAL

Total

Recon/Intelligence

A-5A  
RA-5C  
RA-3B

Total

Trainer

Support Aircraft

Total

ASW-Surveillance & Ocean Control

Ships

ASW Carriers  
SSN  
SS  
Submarine Direct Support  
DEG  
DE  
DER  
New ASW DE  
Small Patrol  
Aircraft Support Ships

Total

ASW Carrier Air Groups

SH-34G/J  
S-2A/B/D/F

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TABLE 7 - GENERAL PURPOSE FORCES-NAVY (Cont'd)  
(End Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69
<u>ASW Carrier Air Groups (Cont'd)</u>									
SH-3A									
S-2E									
A-4C									
Station Supt A/C									
Replacement Sqdns									
Total									
<u>Patrol A/C Sqdns</u>									
P-2E/S-2A									
SP-2E/H									
P-3A									
Seaplanes									
Replacement Patrol Sqdns									
Supt A/C									
Total									
<u>Multi-Purpose Ships</u>									
<u>SAM Ships</u>									
CGN									
CG/CLG/GAG									
DLGN									
DLG									
DDG									
<u>Other Combat</u>									
CA (gun)									
DL (gun)									
DD/DDR									
<u>Direct Supt Tenders</u>									
Total									
<u>Mine Warfare Ships</u>									
Mine Warfare Ships									
Direct Supt									
Total									
<u>Amphibious Assault Ships</u>									
<u>Log and Oper Supt Ships</u>									
Underway Replenishment									
Fleet Supt									
Total									
<u>Fleet Tactical Supt A/C</u>									
<u>Fleet Supt A/C Sqdns</u>									
<u>Other Supt A/C</u>									
Total: Ships									
Aircraft									

a/ Includes 33 DDE's.

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TABLE 8 - GENERAL PURPOSE FORCES - NAVY SHIP CONSTRUCTION AUTHORIZATION PROGRAM  
Authorized for Start of Construction in Fiscal Year

	<u>FY 61</u>	<u>FY 62</u>	<u>FY 63</u>	<u>FY 64</u>	<u>FY 65</u>	<u>FY 66</u>	<u>FY 67</u>	<u>FY 68</u>	<u>FY 69</u>
<u>New Construction</u>									
CVA Attack Carrier									
SSN Attack Submarine (Nuclear)									
Escorts									
Small Patrol									
Frigates									
Destroyers									
Mine Warfare									
Amphibious									
Logistics & Oper. Support Ships									
Total New Construction									
<u>Conversions</u>									
SSN Attack Submarines									
SS Attack Submarine									
DDG (DL & DD 931)									
DD (DD 931 ASW MOD)									
Destroyers (FRAM)									
Mine Warfare									
Amphibious									
Logistics & Oper. Support Ships									
Total Conversions									
Total New Construction and Conversion									
Total Cost of Ships (In Millions)	\$927	\$1,294	\$1,691	\$1,471	\$1,848				
Net Adv. Procurement	<u>-5</u>	<u>+19</u>	<u>+28</u>	<u>-44</u>	<u>-1</u>				
<b>TOTAL</b>	<b>\$922</b>	<b>\$1,313</b>	<b>\$1,719</b>	<b>\$1,427</b>	<b>\$1,847</b>				

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TABLE 9 - GENERAL PURPOSE FORCES-MARINE CORPS  
(End Fiscal Year)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69
Marine Divisions									
Marine Air Wings									
Tank Battalions									
Light AA Msle Bns (HAWK)									
Hvy Arty Rocket Bns (HJ)									
Amphibian Tractor Bns									
Hqs Fleet Marine Forces									
Res Division/Wing Teams									
 <u>Marine Air Wings</u>									
<u>Fighter Squadrons</u>									
F-6A									
F-8									
F-4B									
Total									
 Attack Squadrons									
AF-1E									
A4B/C									
A-4E									
A-6A									
VAL									
Total									
 Recon Countermeasures									
 Tanker Transport Sqns									
 Helicopter Transport Sqns									
CH-37C									
UH-34D									
CH-46A									
CH-53A									
Total									
 Light Helicopter/Obs Sqns									
O-1B/C/OH-43D									
UH-1E									
Total									
 Mar. Air Wing Total A/C									
 <u>Support Aircraft</u>									
<u>Marine Air Wings</u>									
Hqs Fleet Marine Forces									
Marine Air Bases									
Total Support Aircraft									
 Total Marine Aircraft									

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TABLE 10 - NAVY AND MARINE CORPS RESERVE FORCES  
(End of Fiscal Year)

	FY 1961	FY 1962	FY 1963	FY 1964	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969
<u>Navy Res Trng Ships a/</u>									
DE-Destroyer									
DE-Escort									
MSC Minesweeper									
MSCO Minswper (Old)									
Total									
<u>Aircraft</u>									
F-9/F-1									
F-8A									
F-8									
Total Fighter									
A-1E									
A-4A/B/C									
Total Attack									
Recon/Photo									
Search Units (VS)									
Search Units (RS)									
P-2									
SP-2									
Total Patrol									
Transport Units									
Support Aircraft									
Total Aircraft									
<u>Reserve Fleet</u>									
<u>Ships Maintained by Navy</u>									
Category A b/									
Category B									
Other									
<u>Ships Maintained by Maritime Commission</u>									

a/ Includes only those ships which maintain operational readiness to perform wartime tasks.

b/ These are used as naval reserve training ships shown above.

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TABLE 11 - NAVY AND MARINE CORPS AIRCRAFT PROCUREMENT PROGRAM

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69
<u>Fighter</u>									
F-8E									
F-4B									
F-111B									
Total									
<u>Attack</u>									
A-1C									
A-4E									
A-6A									
VAL									
Total									
<u>Recon/Counter</u>									
A-5A/C									
EA-6A									
RF-4B									
Total									
<u>Fleet Early Warning</u>									
E-2A									
<u>Carrier ASW</u>									
S-2E									
SH-3A									
<u>Patrol</u>									
SP-2H									
P-3A									
<u>Helicopters</u>									
UH-34D									
UH-2A									
UH-1E									
CH-46A									
CH-53A									
Total									
<u>Fleet Tactical Support</u>									
C/HC-130									
C-2A									
<u>Trainer</u>									
TC-4E									
T-2B									
T-39D									
<u>Mission Support</u>									
C-4B									
T-33A									
U-3									
GV2-U									
Total									
Proc Cost (In Millions)c/	\$ ,279	\$1,478	\$1,420	\$ ,176	\$1,389				

a/ Includes 27 aircraft to be procured from Air Force.

b/ Excludes 4 aircraft financed under RDT&E in FY 1964.

c/ Includes flyaway aircraft, advance buy, peculiar AGE, and training device costs. All spares and other support are not included.

TABLE 12 - GENERAL PURPOSE FORCES - AIR FORCE AND AIR NATIONAL GUARD  
(End Fiscal Year d/)

	FY 61	FY 62	FY 63	FY 64	FY 65	FY 66	FY 67	FY 68	FY 69
<u>Active Forces a/</u>									
Tactical Fighters									
F-84									
F-86									
F-100									
F-101									
F-104									
F-105									
F-4C									
F-4D									
F-4E									
F-111									
Total Aircraft									
No. of Wings									
Tactical Bombers									
B-57									
B-66									
Tactical Recon.									
RF-84									
RF-101									
RF-4									
RF-111									
RB-66									
Total Aircraft									
No. of Squadrons									
KB-50 Tankers									
Special Air Warfare Forces									
C-123									
Other									
Interceptor Fighters									
F-89									
F-102									
Total Active A/C									
<u>Air National Guard b/</u>									
Tactical Fighters									
F-84									
F-86									
F-100									
F-104									
F-105									
Total									
Tactical Bomber, B-57									
Tactical Recon.									
RB-57									
RF-84									
RF-101									
KC-97 Tankers									
Total ANG A/C									

a/

b/

c/

d/

TABLE 13 - GENERAL PURPOSE FORCES - AIR FORCE AIRCRAFT PROCUREMENT PROGRAM

<u>Type of Aircraft</u>	<u>FY 61</u>	<u>FY 62</u>	<u>FY 63</u>	<u>FY 64</u>	<u>FY 65</u>	<u>FY 66</u>	<u>FY 67</u>	<u>FY 68</u>	<u>FY 69</u>
F-105	180	231	107						
F-4C		30	307	275					
F-4D				52	238	209			
F-4E						127	133		
F-111 (TFX)					10	55	112	246	360
RF-4C		2	24	108	144	47			
RF-111 (R-TFX)	—	—	—	—	—	2	41	60	60
Total	<u>180</u>	<u>263</u>	<u>438</u>	<u>435</u>	<u>392</u>	<u>440</u>	<u>286</u>	<u>306</u>	<u>420</u>

Procurement Cost  
(In millions) a/      \$377    \$613    \$977    \$947    \$963

a/ Includes flyaway aircraft, Advance Buy, Peculiar AGE, and training device costs. All spares and other support are not included.

TABLE 14 - AIRLIFT AND SEALIFT FORCES  
(End Fiscal Year)

FY 61 FY 62 FY 63 FY 64 FY 65 FY 66 FY 67 FY 68 FY 69

Active Forces

C-97  
C-118  
C-121  
C-123  
C-124  
C-130  
C-133  
C-135  
C-141  
Total Active

Air Force Reserve

C-119  
C-123  
C-124

Air National Guard

C-97  
C-121  
C-123  
Res & Guard-Total

L/R Airlift

30-day lift to:

S.E. Asia (tons-000) c/  
Europe (tons-000) c/

Sealift f/

Troop Ships

Cargo:

General Purpose  
Roll-on/Roll-off  
Special Purpose

Tankers

Forward Floating Base

Project Ships

Total

a/ Aircraft released from MATS will be used for interim modernization of the mission support fleet, for modernization of the Navy's Fleet Tactical Support squadrons, or for Air Force reserve components. Exact distribution is now under study.

b/ Increases to 320 U.E. aircraft by FY 1970.

c/ Based on active and reserve military capabilities; CRAF not included.

d/ Increases to 73.3 in FY 1970.

e/ Increases to 140.7 in FY 1970.

f/ Does not include amphibious ships in Program III.

g/ Phased-out ships will go to Ready Reserve Status or to amphibious forces in Program III. Exact distribution is now under study.

h/ A new type Ro/Ro ship may be substituted beginning in FY 1967.

i/ Number of ships will increase beginning in FY 1966 if forthcoming tests are successful.

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TABLE 15 - AIRLIFT AND SEALIFT PROCUREMENT PROGRAM

Airlift  
C-130B/E  
C-135A/B  
C-141  
Total Aircraft

Cost (\$ Millions) <sup>a/</sup> \$130 \$315 \$502 \$473 \$514

Sealift  
T-LSU, Roll-on/Roll-off  
T-AO Conversion

Cost (\$ Millions) \$20 \$27

<sup>a/</sup> Includes flyaway aircraft, advance buy, peculiar AGE, and training device costs.  
All spares and other support are not included.

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TABLE 16 - SUMMARY OF STRENGTH, DRILL STATUS, ETC.  
FOR RESERVE AND GUARD FORCES

(In Thousands)

	End Fiscal Year				
	1961	1962a	1963	1964	1965
Army Reserve					
Paid Drill Training	301.8	261.5	237.0	264.0 b/	285.0 b/
Other Paid Training	<u>59.3</u>	<u>48.3</u>	<u>47.2</u>	<u>80.4</u>	<u>58.4</u>
Total Paid Status	<u>361.1</u>	<u>309.8</u>	<u>284.2</u>	<u>344.4</u>	<u>343.4</u>
Army National Guard					
Paid Drill Training	393.8	361.0	360.7	376.0 b/	395.0 b/
Other Paid Training	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Paid Status	<u>393.8</u>	<u>361.0</u>	<u>360.7</u>	<u>376.0</u>	<u>395.0</u>
Total Army Paid Status	754.9	670.8	644.9	720.4	738.4
Naval Reserve					
Paid Drill Training	129.9	111.3	119.6	126.0	126.0
Other Paid Training	<u>8.0</u>	<u>7.9</u>	<u>9.8</u>	<u>10.1</u>	<u>8.6</u>
Total Paid Status	<u>137.9</u>	<u>119.2</u>	<u>129.4</u>	<u>136.1</u>	<u>134.6</u>
Marine Corps Reserve					
Paid Drill Training	43.8	46.6	46.3	45.5	45.5
Other Paid Training	<u>2.1</u>	<u>2.0</u>	<u>1.8</u>	<u>3.4</u>	<u>3.4</u>
Total Paid Status	<u>46.0</u>	<u>48.6</u>	<u>48.1</u>	<u>48.9</u>	<u>48.9</u>
Air Force Reserve					
Paid Drill Training	64.5	58.4	58.6	61.0	61.0
Other Paid Training	<u>11.5</u>	<u>10.7</u>	<u>9.1</u>	<u>9.0</u>	<u>7.5</u>
Total Paid Status	<u>75.9</u>	<u>69.2</u>	<u>67.7</u>	<u>70.0</u>	<u>68.5</u>
Air National Guard					
Paid Drill Training	70.9	50.3	74.3	75.0	75.0
Other Paid Training	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total Paid Status	<u>70.9</u>	<u>50.3</u>	<u>74.3</u>	<u>75.0</u>	<u>75.0</u>
Total AF Paid Status	146.8	119.5	142.0	145.0	143.5
Total Reserve Forces					
Paid Drill Training	1004.8	889.1	896.5	947.5	987.5
Other Paid Training	<u>80.9</u>	<u>68.9</u>	<u>67.9</u>	<u>102.9</u>	<u>77.9</u>
Total Paid Status	<u>1085.7</u>	<u>958.0</u>	<u>964.4</u>	<u>1050.4</u>	<u>1065.4</u>

a/ Excludes reservists called to active duty during the "Berlin crisis".

b/ The programmed strength for the Army Reserve Components is 700,000, Army Reserve 300,000 and National Guard 400,000. The figures shown above are estimates of strengths that will actually be attained.

NOTE: Detail may not add to totals due to rounding.

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TABLE 17 - DEPARTMENT OF DEFENSE PROGRAMS SUPPORTING THE  
FOUR SAFEGUARDS RELATED TO THE TEST BAN TREATY  
(TOA, \$ Millions)

	FY 1964	FY 1965
1. Safeguard I		
2. Safeguard II		
3. Safeguard III		
4. Safeguard IV		
5. Safeguard V		
6. Safeguard VI		
7. Safeguard VII		
8. Safeguard VIII		
9. Safeguard IX		
10. Safeguard X		
11. Safeguard XI		
12. Safeguard XII		
13. Safeguard XIII		
14. Safeguard XIV		
15. Safeguard XV		
16. Safeguard XVI		
17. Safeguard XVII		
18. Safeguard XVIII		
19. Safeguard XVIX		
20. Safeguard XX		
21. Safeguard XXI		
22. Safeguard XXII		
23. Safeguard XXIII		
24. Safeguard XXIV		
25. Safeguard XXV		
26. Safeguard XXVI		
27. Safeguard XXVII		
28. Safeguard XXVIII		
29. Safeguard XXIX		
30. Safeguard XXX		
31. Safeguard XXXI		
32. Safeguard XXXII		
33. Safeguard XXXIII		
34. Safeguard XXXIV		
35. Safeguard XXXV		
36. Safeguard XXXVI		
37. Safeguard XXXVII		
38. Safeguard XXXVIII		
39. Safeguard XXXIX		
40. Safeguard XXXX		
41. Safeguard XXXXI		
42. Safeguard XXXXII		
43. Safeguard XXXXIII		
44. Safeguard XXXXIV		
45. Safeguard XXXXV		
46. Safeguard XXXXVI		
47. Safeguard XXXXVII		
48. Safeguard XXXXVIII		
49. Safeguard XXXXIX		
50. Safeguard XXXX		
51. Safeguard XXXXII		
52. Safeguard XXXXIII		
53. Safeguard XXXXIV		
54. Safeguard XXXXV		
55. Safeguard XXXXVI		
56. Safeguard XXXXVII		
57. Safeguard XXXXVIII		
58. Safeguard XXXXIX		
59. Safeguard XXXX		
60. Safeguard XXXXII		
61. Safeguard XXXXIII		
62. Safeguard XXXXIV		
63. Safeguard XXXXV		
64. Safeguard XXXXVI		
65. Safeguard XXXXVII		
66. Safeguard XXXXVIII		
67. Safeguard XXXXIX		
68. Safeguard XXXX		
69. Safeguard XXXXII		
70. Safeguard XXXXIII		
71. Safeguard XXXXIV		
72. Safeguard XXXXV		
73. Safeguard XXXXVI		
74. Safeguard XXXXVII		
75. Safeguard XXXXVIII		
76. Safeguard XXXXIX		
77. Safeguard XXXX		
78. Safeguard XXXXII		
79. Safeguard XXXXIII		
80. Safeguard XXXXIV		
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428. Safeguard XXXX		

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TABLE 18 - RECAPITULATION OF DOD SPACE DEVELOPMENT PROJECTS  
 (TOA, \$ Millions)

	<u>FY 1961</u>	<u>FY 1962</u>	<u>FY 1963</u>	<u>FY 1964</u>	<u>FY 1965</u>
<u>Spacecraft Mission Projects</u>					
Manned Orbital Laboratory	-	-	-	10.0	75.0
GEMINI (Manned Space Flight)	-	-	1.4	13.6	6.0
X-20 (DYNASOAR)	58.0	100.0	131.8	70.0	-
DoD Comm. Satellite System	109.4	164.1	75.0	35.0	8.9
	55.2	104.6	59.6	76.6	44.7
	3.1	16.7	27.5	26.9	25.7
	23.6	22.0	42.1	27.9	24.8
	8.2	26.0	29.0	2.7	2.0
	-	7.0	9.0	6.0	-
	-	-	7.9	51.0	12.9
	-	-	-	3.0	10.0
Sub-Total	9.1	7.1	2.4	14.9	13.5
	266.6	447.5	385.7	337.6	223.5
<u>Vehicle, Engine and Component Development</u>					
TITAN III	-	22.1	232.8	329.6	205.6
Re-entry and Recovery	-	-	13.0	13.5	21.4
Standardized Space Guidance	-	-	(3.0)	(5.0)	30.0
Solid Propellant Motor Development	-	13.6	14.0	30.9	12.0
Liquid Rocket Engine Development	-	-	-	-	10.0
Other	3.7	32.6	48.4	10.5	3.0
Sub-Total	3.7	68.3	308.2	384.5	282.0
<u>Ground Support</u>					
Atlantic Missile Range (Space-Related)	35.5	60.5	85.0	67.4	83.2
Pacific Missile Range (Space-Related)	14.9	11.6	20.5	25.9	35.1
White Sands Msle. Range (Space-Related)	-	0.5	2.0	2.1	2.6
Test Instrumentation (Space-Related)	-	0.5	10.6	15.1	17.4
Space Track	3.3	24.9	39.9	34.7	39.3
SPASUR	4.1	4.6	8.3	22.9	10.1
Satellite Tracking and Control	-	-	-	-	9.1
Sub-Total	57.8	102.6	166.3	168.1	196.8
<u>Supporting Research and Development</u>					
(Includes Applied Research and Component Development)	65.1	148.6	144.9	146.9	149.1
<u>General Support</u>					
TOTALS: Defense Space Development Project	813.9	1,298.2	1,579.3	1,515.8	1,474.1

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TABLE 19 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT 1/  
(TOA, \$ Millions)

	<u>Prior Years</u>	<u>FY 1962</u>	<u>FY 1963</u>	<u>FY 1964</u>	<u>FY 1965</u>
<u>RESEARCH</u>					
Army	-	73	73	82	89
Navy	-	119	129	136	149
Air Force	-	70	83	84	93
ARPA	-	33	31	35	45
<b>Total</b>	-	<b>295</b>	<b>316</b>	<b>337</b>	<b>376</b>
<u>EXPLORATORY DEVELOPMENTS</u>					
Army	-	142	225	243	243
Navy	-	324	355	344	337
Air Force	-	295	292	305	308
ARPA	-	218	224	237	238
<b>Total</b>	-	<b>979</b>	<b>1,096</b>	<b>1,129</b>	<b>1,126</b>
<u>ADVANCED DEVELOPMENTS</u>					
Army					
Tri-Service V/STOL Concepts	1	7	12	10	11
New Surveillance A/C	2	7	11	11	8
Communications Satellite	80	103	50	20	18
NIKE X Experiments	5	19	98	-	-
Heavy Lift Helicopter	-	-	15	2	2
Anti-Tank Weapons	34	26	28	18	4
Air Defense Systems 1970's	-	-	-	-	5
Other Advanced Develop.	-	3	12	19	24
Sub-Total	-	165	226	80	72
Navy					
Tri-Service V/STOL	1	6	12	10	12
HAWKER P-1127	-	-	2	3	3
Undersea Warfare (incl. ARTEMIS, TRIDENT, and other ASW projects)	108	33	57	69	89
Adv. Sea-based Deterrent	-	-	15	12	12
Air Cushion Ships/GEM	-	-	-	-	2
Spec. Warfare Navy Acft.	-	-	-	-	6
Other Advanced Develop.	-	18	23	41	52
Sub-Total	-	57	109	135	176

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TABLE 19 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (cont'd.)  
(TOA, \$ Millions)

	<u>Prior Years</u>	<u>FY 1962</u>	<u>FY 1963</u>	<u>FY 1964</u>	<u>FY 1965</u>
<u>ADVANCED DEVELOPMENTS (cont'd)</u>					
Air Force					
Tri-Service V/STOL	1	6	12	13	16
V/STOL Aircraft Tech (incl. HAWKER P-1127)	-	-	2	5	12
V/STOL Eng. Development	-	-	-	-	10
Communications Satellite	-	-	5	52	22
Manned Orbital Lab	-	-	-	10	75
GEMINI (Manned Space Flight)	-	-	-	14	6
X-20 (DYNASOAR)	109 184	100 164	132 75	70 35	- 9
[REDACTED]	8	26	29	3	2
[REDACTED]	-	-	-	3	10
Re-entry and Recovery	-	-	14	14	21
Solid Propellant Motor Development	-	14	14	31	12
Adv. Storable Liquid Prop.	-	-	-	-	7
High Energy Storable Liquid, Upper	-	-	-	-	3
X-15	150 24	10 7	10 12	9 15	8 12
[REDACTED]	-	-	9	8	8
Advanced ICBM	-	-	-	7	10
[REDACTED]	-	-	-	-	9
AWACS (Airborne Warning & Control System)	-	-	-	-	12
Tactical Fighter Avionics	-	-	-	-	87
Other Adv. Developments	-	52	141	104	351
Sub-Total	-	379	462	397	599
TOTAL ADV. DEVELOPMENTS	-	601	797	612	599

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TABLE 19 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (cont'd)  
 (TOA, \$ Millions)

	<u>Prior Year</u>	<u>FY 1962</u>	<u>FY 1963</u>	<u>FY 1964</u>	<u>FY 1965</u>
<u>ENGINEERING DEVELOPMENTS</u>					
Army					
NIKE-ZEUS Testing	836	272	177 <sup>2/</sup>	65	40
NIKE-X	-	-	-	266 <sup>2/</sup>	334
Mobile Forward Area Air Defense (Including MAULER)	39	36	50	76	51
LANCE (Div. Support Missile)	4	1	18	47	58
TOW	-	-	-	-	24
Main Battle Tank	-	-	2	8	11
Combat Surv. & Target Acquis.	-	45	46	42	41
Comm. & Elec. Equipment	-	43	67	76	69
Air Mobility	-	36	17	29	23
Artillery Wpns & Atomic Munitions	3	26	37	33	38
Infantry Weapons	-	6	16	17	15
Other Army Engineering Dev.	-	76	92	94	88
Sub-Total	-	541	522	754	792
Navy					
Adv. Design ASW Des. Escort	-	-	9	26	20
Wire Guided Torpedo EX 10	-	-	4	13	18
ASW Rockets	-	-	-	-	6
Aircraft Engines	-	-	9	13	20
Other ASW	-	3	4	12	23
Short Range Guided A/S Wpn.	-	-	-	11	7
Med. Range Guided A/S Wpn.	-	-	-	-	9
TYPHON	78	44	55	47	-
NORTON SOUND Eng. Tests	-	-	-	15	-
ADV. SAM Systems	-	-	-	12	16
████████████████████████████████	61	17	24	9	7
Marine Corps Develop.	6	7	4	8	10
Other	-	26	48	67	90
Sub-Total	-	97	157	233	226
Air Force					
XB-70	800	220	207	156	92
MRBM	-	4	26	73	110
Ballistic Msle Re-entry Sys.	-	-	121	155	165
TITAN III	-	22	233	330	206
Standardized Space Guidance	-	-	-	-	30
Adv. Strat. Manned System	-	-	-	-	5
Heavy Log. Support a/c (CX)	-	-	-	10	7
Other	-	93	101	49	65
Sub-Total	-	339	688	773	680
TOTAL ENGINEERING DEV.	-	977	1,367	1,760	1,698

## SUBSCRIPTIONS

~~SECRET~~TABLE 19 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (cont'd)  
(TOA, \$ Millions)

	<u>Prior Years</u>	<u>FY 1962</u>	<u>FY 1963</u>	<u>FY 1964</u>	<u>FY 1965</u>
<u>MANAGEMENT AND SUPPORT</u>					
Army					
White Sands Msle. Range	-	54	65	74	93
General Support	-	145	145	160	168
Sub-Total	-	199	210	234	261
Navy					
Pacific Missile Range	-	117	134	142	159
AUTEC	-	15	18	16	19
General Support	-	204	189	192	195
Sub-Total	-	333	341	350	373
Air Force					
Atlantic Missile Range	-	195	280	232	231
Def. Doc. Center	-	3	5	3	-
General Support	-	634	640	661	666
Sub-Total	-	832	925	896	897
DSA	-	-	-	6	11
<b>TOTAL MANAGEMENT &amp; SUPPORT</b>	<b>-</b>	<b>1,364</b>	<b>1,476</b>	<b>1,486</b>	<b>1,542</b>
EMERGENCY FUND	-	-	-	101	150
<b>Sub-Total R&amp;D</b>	<b>-</b>	<b>4,216</b>	<b>5,052</b>	<b>5,425</b>	<b>5,491</b>
<u>OPERATIONAL SYSTEMS DEVELOPMENT</u>					
Army					
NIKE-HERCULES	135	3	4	2	1
SERGEANT	170	8	5	1	1
REDEYE	13	9	12	15	8
CHINOOK	39	7	11	3	-
Multi-System Test Equip.	-	-	4	8	5
Gen. Sheridan - AR/AAV	5	7	12	4	-
HAWK	128	5	2	10	6
SHILLELAGH	-	-	-	32	9
DUCC	-	-	-	-	5
Sub-Total	-	157	98	103	56

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TABLE 19 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (Cont'd)  
(TOA, \$ Millions)

	<u>Prior Years</u>	<u>FY 1962</u>	<u>FY 1963</u>	<u>FY 1964</u>	<u>FY 1965</u>
<u>OPERATIONAL SYSTEMS DEV. (Cont'd)</u>					
Navy					
FBM Subs	1,469	444	379	209	63
F4B Equipment Improv.	-	3	9	8	4
COD Aircraft	-	5	21	-	-
CH53A Assault Helicopter	5	-	7	6	2
Radar Height Finding	4	6	6	2	1
SGS-23 & 26 Sonar	16	3	3	6	8
Naval Tactical Data Sys.	68	10	7	7	4
SATS	16	2	7	14	17
Torpedo MK 46	38	11	21	-	-
TERRIER BT-3A & HT3	52	5	3	1	-
TALOS	59	7	6	2	-
TARTAR	109	4	6	6	-
SPARROW III	31	5	2	-	-
BULLPUP	25	6	37	15	6
SUBROC	84	34	1	4	3
EYE Weapons	1	1	11	25	28
Tactical Fighter F-111B	-	-	22	60	73
Tactical Fighter F-111B FC & Msl	-	-	-	26	47
Guided Msl Improv (Incl SAM & AIR)	-	-	-	4	4
Marine Corps Tact. Data System	21	8	6	34	39
Follow-on Lt. Attack A/C (VAL)	-	-	-	58	40
Other Operational Systems	-	14	8	497	345
Sub-Total	-	568	566	497	345
Air Force					
Emergency Rocket Comm. System	-	-	5	6	12
ATLAS	2,094	102	59	14	-
GAM 87 SKYBOLT	149	144	84	-	-
TITAN	1,950	350	199	73	1
MINUTEMAN I	1,189	538	293	95	16
MINUTEMAN II	-	-	137	287	276
STRAT Air CCS (465L)	70	10	6	5	1
PACCS	-	-	7	8	6
SPADATS	-	-	8	16	-
NORAD COC (425L)	4	19	23	12	10
TAC Ftr F-111A (TFX)	1	2	6	6	4
C-141 Air Transp.	5	6	116	233	321
	30	84	68	14	9
	87	16	7	8	5

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TABLE 19 - FINANCIAL SUMMARY OF RESEARCH AND DEVELOPMENT (Cont'd)  
(TOA, \$ Millions)

	<u>Prior Years</u>	<u>FY 1962</u>	<u>FY 1963</u>	<u>FY 1964</u>	<u>FY 1965</u>
<u>OPERATIONAL SYSTEMS DEV. (cont'd)</u>					
Air Force					
Aeronautical Support Activities	-	44	81	137	97
Weather Obs. & Frcst (433L)	24	2	2	3	3
Other Operational Sys. Dev.	-	33	4	5	9
Sub-Total	-	1,719	1,700	1,421	1,185
Defense Agencies - Sub-Total	-	193	199	163	224
Sub-Total Operational Systems Dev.	-	2,637	2,563	2,184	1,810
<b>TOTAL R&amp;D</b>	<b>-</b>	<b>6,853</b>	<b>7,615</b>	<b>7,609</b>	<b>7,301</b>
Less Support from Other Approp.	-	-506	-511	-475	-524
<b>TOTAL OBLIGATIONAL AUTHORITY</b>	<b>-</b>	<b>6,347</b>	<b>7,104</b>	<b>7,134</b>	<b>6,777</b>
Financing Adjustments	-	-979 <sup>3/</sup>	-111	-185	-55
<b>NEW OBLIGATIONAL AUTHORITY</b>	<b>-</b>	<b>5,368</b>	<b>6,993</b>	<b>6,949</b>	<b>6,722</b>

1/ Prior year program data are presented on the basis of comparability to the program as shown for the FY 1965 budget.  
 2/ Includes project 505 (2 million in FY 1963 and 6 million in FY 1964).  
 3/ Includes comparability adjustment of 1,034.7 million.

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TABLE 20 - GENERAL SUPPORT  
(TOA \$ Millions)

	<u>FY 63</u>	<u>FY 64</u>	<u>FY 65</u>
<u>Individual Training and Education</u>			
Recruit Training	\$ 608	\$ 757	\$ 711
Technical Training	1012	1053	1066
Professional Training	225	248	276
Flight Training	639	646	766
Other	368	441	487
Total	<u>\$2855</u>	<u>\$3144</u>	<u>\$3306</u>
<u>Communications - Total</u>	<u>\$ 806</u>	<u>\$ 879</u>	<u>\$ 890</u>
<u>Logistic Support - Total</u>	<u>\$3036</u>	<u>\$3167</u>	<u>\$3145</u>
<u>Military Family Housing - Total</u>	<u>\$ 693</u>	<u>\$ 652</u>	<u>\$ 719</u>
<u>Medical Services - Total</u>	<u>\$ 772</u>	<u>\$ 762</u>	<u>\$ 845</u>
<u>Headquarters and Support Services</u>			
Headquarters	\$ 779	\$ 929	\$ 974
Weather Service	122	128	137
Air Rescue/Recovery	46	86	120
Construction Support Activities	144	92	104
DEEP FREEZE	20	20	20
Other Support Activities	2218	2347	2633
Total	<u>\$3329</u>	<u>\$3604</u>	<u>\$3987</u>
<u>National Military Command System - Total</u>	<u>\$ 69</u>	<u>\$ 89</u>	<u>\$ 161</u>
<u>Miscellaneous Department-Wide Activities</u>			
Contingencies	\$ 14	\$ 15	\$ 15
Claims	22	19	23
Other	81	88	78
Total	<u>\$ 118</u>	<u>\$ 122</u>	<u>\$ 116</u>
<u>GRAND TOTAL *</u>	<u>\$13194</u>	<u>\$13886</u>	<u>\$14785</u>

\* Excludes Retired Pay previously included in General Support as follows:  
 \$1015      \$1229      \$1399

NOTE: Detail may not add due to rounding.

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TABLE 21 - FINANCIAL SUMMARY OF CIVIL DEFENSE  
(TOA, \$ Millions)

	<u>FY 62</u>	<u>FY 63</u>	<u>FY 64</u>	<u>FY 65</u>
A. Shelter Survey	58.4	9.3	7.8	9.2
B. Shelter Development				175.0
C. Shelter in Federal Buildings	19.8 <u>a/</u>			20.0
D. Shelter Provisions	90.2	32.7	23.5	46.4
E. Warning	6.8	4.1 <u>b/</u>	1.5	4.5
F. Emergency Operations	19.9	13.0 <u>b/</u>	6.1	15.2
G. Financial Assistance to States	18.9	27.5	31.0	35.7
H. Research and Development	19.0	11.0	10.0	15.0
I. Management	12.4	13.6	14.1	15.0
J. Public Information	4.0	4.3	3.8	4.0
K. Training and Education	<u>2.9</u>	<u>9.9</u>	<u>13.8</u>	<u>18.0</u>
<b>TOTAL</b>	<b><u>252.3</u></b>	<b><u>125.4</u></b>	<b><u>111.6</u></b>	<b><u>358.0</u></b>

a/ Includes \$2.3 million transferred from OCDM for construction of a Regional Center.

b/ Excludes \$2.2 million transferred to Army for civil defense warning and communications networks.

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TABLE 22 - DEPARTMENT OF DEFENSE COST REDUCTION PROGRAM  
(In Millions of Dollars)

	Estimated Savings to be Realized In:			Annual Savings By FY 1967 From Actions Initiated FY 1962 Thru:		
	FY 1963b/	FY 1964b/	FY 1965b/	FY 1963	FY 1964	FY 1965
<b>A. BUYING ONLY WHAT WE NEED</b>						
1. Refining requirements calculations						
a. Major items of equipment	90	293	373	106a/	266	320
b. Initial spares provisioning	163	133	134	167b/	144	155
c. Secondary items	481	670	607	481	620b/	564
d. Technical manuals	-	-	-	6	14	14
e. Production base facilities	35	13	19	35b/	13	16
f. Technical data and reports	-	2	4	-	23	47
2. Increased use of excess inventory in lieu of new procurement						
a. Equipment and supplies	-	16	15	164	284	394
b. Idle production equipment	1	-	-	1	7	13
c. Excess contractor inventory	18	1	1	18	20	20
3. Eliminating "Gold-plating" (Value Engineering)	72	14	15	72	116	145
4. Inventory item reduction	-	-	-	43b/	48b/	34
Total Buying Only What We Need	<u>860</u>	<u>1,142</u>	<u>1,168</u>	<u>1,093</u>	<u>1,555</u>	<u>1,722</u>
<b>B. BUYING AT THE LOWEST SOUND PRICE</b>						
1. Shift from non-competitive to competitive procurement						
Total % competitive c/	37.3%					
Total amount of savings	237	176	216	237	304	375
2. Shift from CPFF to fixed or incentive price						
Total % CPFF d/	-					
Total amount of savings	-	-	436	436	573	668
3. Breakout for direct purchase	-	-	-	-	11	24
Total Buying at Lowest Sound Price	<u>237</u>	<u>176</u>	<u>652</u>	<u>673</u>	<u>888</u>	<u>1,067</u>
<b>C. REDUCING OPERATING COSTS</b>						
1. Terminating unnecess. operations	123	310	359	336	479	600
2. Consol. & stand. operations						
a. DSA operating exp. savings f/	31	38	53	31	39	54
b. Departmental opr. exp. savings	-	7	20	1	44	101
3. Increasing efficiency of operations						
a. DCA & comm. systems savings	80	129	49	83b/	129b/	66
b. Improv. trans. & traffic mgmt.	24	12	12	24	24	24
c. Improv. equip. maint. mgmt.	-	28	109	106	191	289
d. Improv. non-combat vehicle mgmt.	2	12	12	3	12	24
e. Reduced use of cont. technicians	-	9	9	-	20	27
f. Improv. military housing mgmt.	6	6	8	6	12	25
g. Improv. real property mgmt.	23	3	9	23	34	38
h. Reduced cost of packaging	-	1	1	-	7	7
Total Reducing Operating Costs	<u>289</u>	<u>555</u>	<u>641</u>	<u>613</u>	<u>991</u>	<u>1,255</u>
<b>TOTAL PROGRAM</b>	<b><u>1,386</u></b>	<b><u>1,873</u></b>	<b><u>2,461</u></b>	<b><u>2,379e/</u></b>	<b><u>3,434e/</u></b>	<b><u>4,044e/</u></b>

a/ In addition FY 1962 "requirements" for major items of equipment were reduced by \$24 billion. In FY 1963, the Army reduced 1964 pipeline requirements by \$500 million.

b/ Includes certain one-time savings not expected to recur in future years.

c/ FY 1961 was 32.9%; total annual conversion from sole source by end FY 1965 of \$1.6 billion - savings are 25% per dollar converted.

d/ For the first 9 months of FY 1961, CPFF was 38%; a reduction of \$6.7 billion is required to reduce that percentage to 12.3%; savings are 10% per dollar converted.

e/ Goals reported to Congress "as estimated 1/15/63" were FY 1963 - \$1,894 million; FY 1964 - \$2,689 million; FY 1965 - \$3,444 million.

f/ Excludes DSA inventory drawdown without replacement of \$234 million in FY 1963; \$153 million in FY 1964; and \$83 million in FY 1965, a total of \$470 million.

TABLE 23 - FY 1964 BUDGET PROGRAMS AND NEW OBLIGATIONAL AUTHORITY

By Appropriation Title  
(Millions of Dollars)

Appropriation Title	Strategic Retaliatory Forces	Continental Air and Missile Defense Forces	General Purpose Forces	Airlift and Sealift Forces	Reserve and Guard Forces	Research and Develop- ment	General Support	Retired Pay	Civil Defense	Military Assis- tance	Undis- tributed	Total Programs (TOA)	Financing Adjust- ments	New Obli- gational Authority
<b>MILITARY PERSONNEL</b>														
Military Personnel, Army		104.1	2,634.0	7.1	124.6	46.3	1,276.6					4,192.7	-150.0	4,042.7
Military Personnel, Navy	69.9	50.1	1,640.6	26.5	79.6	59.5	1,051.9				1.6	2,979.7	-120.0	2,859.7
Military Personnel, Marine Corps	.2	.7	515.0		18.4	.8	189.5				1.1	725.6		725.6
Military Personnel, Air Force	1,190.3	503.6	666.1	348.0	40.8	158.5	1,522.7					4,430.0	-55.0	4,375.0
Reserve Personnel, Army					210.6							210.6		210.6
Reserve Personnel, Navy					95.1							95.1		95.1
Reserve Personnel, Marine Corps					29.9							29.9		29.9
Reserve Personnel, Air Force					57.7							57.7		57.7
National Guard Personnel, Army					251.3							251.3		251.3
National Guard Personnel, Air Force					61.5							61.5		61.5
Retired Pay, Defense								1,229.0				1,229.0		1,229.0
<b>TOTAL - Military Personnel</b>	<b>1,260.4</b>	<b>658.4</b>	<b>5,455.8</b>	<b>381.5</b>	<b>969.5</b>	<b>265.0</b>	<b>4,040.7</b>	<b>1,229.0</b>			<b>2.7</b>	<b>14,263.1</b>	<b>-325.0</b>	<b>13,938.1</b>
<b>OPERATION AND MAINTENANCE</b>														
Operation & Maintenance, Army		66.6	1,255.9	17.3	164.4		1,851.8					3,355.9		3,355.9
Operation & Maintenance, Navy	164.2	42.7	1,464.1	10.3	87.5	27.4	1,112.2					2,909.0		2,909.0
Operation & Maintenance, Marine Corps			85.2		4.6		101.3					191.3		191.3
Operation & Maintenance, Air Force	791.8	561.5	568.3	200.8	92.5	12.7	2,109.1					4,336.9		4,336.9
Operation & Maintenance, Defense Agencies							477.7					477.7		477.7
Operation & Maintenance, Army National Guard					180.8							180.8		180.8
Operation & Maintenance, Air National Guard					222.7							222.7		222.7
National Board for the Promotion of Rifle Practice, Army							.5					.5		.5
Claims, Defense							19.0					19.0		19.0
Contingencies, Defense							15.0					15.0		15.0
Salaries & Expenses, Ct. of Military Appeals, Defense							.5					.5		.5
<b>TOTAL - Operation and Maintenance</b>	<b>956.0</b>	<b>670.9</b>	<b>3,373.5</b>	<b>228.5</b>	<b>752.6</b>	<b>40.1</b>	<b>5,687.1</b>				<b>.5</b>	<b>11,709.2</b>		<b>11,709.2</b>
<b>PROCUREMENT</b>														
Procurement of Equipment and Missiles, Army		83.7	2,370.5	2.1	95.3	6.1	333.6					2,091.4	+39.7	2,931.1
Procurement of Aircraft and Missiles, Navy	589.2	9.0	2,102.5		10.3	19.1	44.3					2,774.4	+114.7	2,889.1
Shipbuilding and Conversion, Navy	688.8		1,426.2				8.2					2,123.3	-63.7	2,059.6
Other Procurement, Navy	135.7	80.2	705.2		14.2	23.6	222.7					1,181.6	-6.4	1,175.2
Procurement, Marine Corps				178.7		29.2						218.5	-16.5	202.0
Aircraft Procurement, Air Force	619.9	110.7	1,387.3	630.7	35.3	7.9	1,001.6					3,793.4	-407.8	3,385.6
Missile Procurement, Air Force	2,037.7	42.5	167.9				221.3					2,469.4	-327.4	2,182.0
Other Procurement, Air Force	147.6	130.8	242.7	35.0	8.1	26.1	364.8					955.1	-76.8	878.3
Procurement, Defense Agencies							43.2					43.3	-1	43.2
<b>TOTAL - Procurement</b>	<b>4,218.9</b>	<b>456.9</b>	<b>8,581.0</b>	<b>667.9</b>	<b>192.5</b>	<b>82.8</b>	<b>2,250.4</b>					<b>16,450.4</b>	<b>-744.4</b>	<b>15,706.0</b>

TABLE 23 - FY 1964 BUDGET PROGRAMS AND NEW OBLIGATIONAL AUTHORITY (cont'd)

By Appropriation Title  
(Millions of Dollars)

Appropriation Title	Strategic Retaliatory Forces	Continental Air and Missile Defense Forces	General Purpose Forces	Airlift and Sealift Forces	Reserve and Guard Forces	Research and Develop- ment	General Support	Retired Pay	Civil Defense	Military Assis- tance	Undis- tributed	Total Programs (TOA)	Financing Adjus- tments	New Obli- gational Authority
<u>RESEARCH, DEVELOPMENT, TEST, AND EVALUATION</u>														
Research, Development, Test, and Evaluation, Army	209.6	9.6	78.7	-	1.0	1,314.0	20.4	-	-	-	-	1,422.7	-36.6	1,386.1
Research, Development, Test, and Evaluation, Navy	487.8	4.4	276.6	-	-	1,040.4	12.9	-	-	-	-	1,545.0	-4.3	1,540.7
Research, Development, Test, and Evaluation, Air Force	-	35.4	233.2	15.0	-	2,208.1	645.8	-	-	-	-	3,625.3	-143.9	3,481.4
Research, Development, Test, & Eval., Defense Agencies	-	-	-	-	-	278.4	161.5	-	-	-	-	439.9	-	439.9
Emergency Fund, Defense	-	-	-	-	-	101.0	-	-	-	-	-	101.0	-	101.0
<b>TOTAL - Research, Development, Test, and Evaluation</b>	<b>697.4</b>	<b>49.4</b>	<b>588.5</b>	<b>15.0</b>	<b>1.0</b>	<b>4,942.0</b>	<b>840.6</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>7,133.9</b>	<b>-184.7</b>	<b>6,949.2</b>
<u>MILITARY CONSTRUCTION</u>														
Military Construction, Army	-	25.2	35.5	-	-	20.4	129.4	-	-	-	-	210.5	-9.9	200.6
Military Construction, Navy	1.7	4.6	75.2	-	-	19.0	102.8	-	-	-	-	203.4	-4.5	198.9
Military Construction, Air Force	183.7	73.3	32.8	12.2	-	40.9	137.3	-	-	-	-	480.2	-11.9	468.3
Military Construction, Defense Agencies	-	-	-	-	-	-	25.5	-	-	-	-	25.5	-1.5	24.0
Military Construction, Army Reserve	-	-	-	-	6.0	-	-	-	-	-	-	6.0	-1.5	4.5
Military Construction, Naval Reserve	-	-	-	-	7.0	-	-	-	-	-	-	7.0	-1.0	6.0
Military Construction, Air Force Reserve	-	-	-	-	5.0	-	-	-	-	-	-	5.0	-1.0	4.0
Military Construction, Army National Guard	-	-	-	-	8.2	-	-	-	-	-	-	8.2	-2.5	5.7
Military Construction, Air National Guard	-	-	-	-	18.0	-	-	-	-	-	-	18.0	-2.0	16.0
Loran Stations, Defense	-	-	-	-	-	-	20.5	-	-	-	-	20.5	-	20.5
<b>TOTAL - Military Construction</b>	<b>185.4</b>	<b>103.1</b>	<b>143.5</b>	<b>12.2</b>	<b>44.2</b>	<b>80.4</b>	<b>415.4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>984.2</b>	<b>-35.7</b>	<b>948.5</b>
<u>FAMILY HOUSING</u>														
Family Housing, Defense	-	-	-	-	-	-	651.7	-	-	-	-	651.7	-14.3	637.4
<u>CIVIL DEFENSE</u>														
Operation and Maintenance, Civil Defense	-	-	-	-	-	-	-	-	-	-	-	70.3	-	70.3
Research & Development, Shelter, & Constr., Civil Def.	-	-	-	-	-	-	-	-	-	-	-	41.3	-	41.3
<b>TOTAL - Civil Defense</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>111.6</b>	<b>-</b>	<b>111.6</b>	<b>-</b>	<b>111.6</b>
<u>MILITARY ASSISTANCE</u>														
<b>GRAND TOTAL</b>	<b>7,318.1</b>	<b>1,938.8</b>	<b>18,142.3</b>	<b>1,305.1</b>	<b>1,959.8</b>	<b>5,410.3</b>	<b>13,885.9</b>	<b>1,229.0</b>	<b>111.6</b>	<b>1,150.0</b>	<b>3.2</b>	<b>52,454.1</b>	<b>-1,454.1</b>	<b>51,000.0</b>
<u>RECAPITULATION:</u>														
Department of the Army	-	289.2	6,374.6	26.6	1,041.2	1,386.9	3,612.2	-	-	-	3.2	12,730.6	-160.7	12,569.9
Department of the Navy	1,859.3	191.7	8,469.4	36.8	376.9	1,189.8	2,856.5	-	-	-	-	14,983.7	-101.7	14,882.0
Department of the Air Force	5,458.8	1,457.8	3,298.4	1,241.7	541.7	2,454.2	6,002.6	-	-	-	-	20,455.2	-1,025.8	19,429.4
Defense Agencies/OSD	-	-	-	-	-	379.4	1,418.6	1,229.0	-	-	-	3,023.0	-15.8	3,007.2
Office of Civil Defense	-	-	-	-	-	-	-	-	111.6	-	-	111.6	-	111.6
Military Assistance	-	-	-	-	-	-	-	-	-	1,150.0	-	1,150.0	-150.0	1,000.0

a/ Includes proposed supplemental appropriation of \$1,087.4 million.

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TABLE 24 - FY 1965 BUDGET PROGRAMS AND NEW OBLIGATIONAL AUTHORITY

By Appropriation Title  
(Millions of Dollars)

Appropriation Title	Strategic Retaliatory Forces	Continental Air and Missile Defense Forces	General Purpose Forces	Airlift and Sealift Forces	Reserve and Guard Forces	Research and Develop- ment	General Support	Retired Pay	Civil Defense	Military Assis- tance	Undis- tributed	Total Programs	Financing Adjus- tments	New Obli- gational Authority (Approp- riation)
<b>MILITARY PERSONNEL</b>														
Military Personnel, Army	75.0	102.4	2,746.9	7.3	137.7	52.9	1,258.7	-	-	-	-	4,306.0	-75.0	4,231.0
Military Personnel, Navy	-	51.8	1,709.9	27.3	83.4	59.7	1,097.8	-	-	-	-	3,105.0	-50.0	3,055.0
Military Personnel, Marine Corps	1,170.7	468.6	535.4	356.0	18.4	18.8	191.2	-	-	-	-	4,747.0	-75.0	4,747.0
Military Personnel, Air Force	-	-	-	-	44.5	167.0	1,550.0	-	-	-	-	4,464.0	-75.0	4,389.0
Reserve Personnel, Army	-	-	-	-	242.9	-	-	-	-	-	-	242.9	-	242.9
Reserve Personnel, Navy	-	-	-	-	99.2	-	-	-	-	-	-	99.2	-	99.2
Reserve Personnel, Marine Corps	-	-	-	-	30.9	-	-	-	-	-	-	30.9	-	30.9
Reserve Personnel, Air Force	-	-	-	-	59.2	-	-	-	-	-	-	59.2	-	59.2
National Guard Personnel, Army	-	-	-	-	274.5	-	-	-	-	-	-	274.5	-	274.5
National Guard Personnel, Air Force	-	-	-	-	69.3	-	-	-	-	-	-	69.3	-	69.3
Retired Pay, Defense	-	-	-	-	-	-	1,399.0	-	-	-	-	1,399.0	-	1,399.0
Military Personnel (Proposed Legislation)	-	-	-	-	-	-	-	-	-	-	172.0	172.0	-	172.0
<b>TOTAL - Military Personnel</b>	<b>1,246.2</b>	<b>643.8</b>	<b>5,679.1</b>	<b>390.5</b>	<b>1,060.1</b>	<b>280.5</b>	<b>4,097.7</b>	<b>1,399.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14,969.0</b>	<b>-200.0</b>	<b>14,769.0</b>
<b>OPERATION AND MAINTENANCE</b>														
Operation and Maintenance, Army	239.6	63.0	1,284.9	19.2	186.3	-	1,909.6	-	-	-	-	3,463.0	-	3,463.0
Operation and Maintenance, Navy	-	38.5	1,573.7	10.5	88.5	28.0	1,180.3	-	-	-	-	3,159.0	-	3,159.0
Operation and Maintenance, Marine Corps	-	-	82.0	-	5.0	-	100.8	-	-	-	-	188.0	-	188.0
Operation and Maintenance, Air Force	842.2	610.0	629.5	236.2	96.9	13.4	2,177.7	-	-	-	-	4,606.0	-	4,606.0
Operation and Maintenance, Defense Agencies	-	-	-	-	-	-	517.0	-	-	-	-	517.0	-	517.0
Operation and Maintenance, Army National Guard	-	-	-	-	188.0	-	-	-	-	-	-	188.0	-	188.0
Operation and Maintenance, Air National Guard	-	-	-	-	236.0	-	-	-	-	-	-	236.0	-	236.0
National Board for the Promotion of Rifle Practice, Army	-	-	-	-	-	-	-	23.0	-	-	-	.5	-	.5
Claims, Defense	-	-	-	-	-	-	-	15.0	-	-	-	15.0	-	15.0
Contingencies, Defense	-	-	-	-	-	-	-	.5	-	-	-	.5	-	.5
Salaries & Expenses, Ct. of Military Appeals, Defense	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL - Operation and Maintenance</b>	<b>1,081.8</b>	<b>711.5</b>	<b>3,570.1</b>	<b>265.9</b>	<b>800.7</b>	<b>41.4</b>	<b>5,924.4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12,396.0</b>	<b>-</b>	<b>12,396.0</b>
<b>PROCUREMENT</b>														
Procurement of Equipment and Missiles, Army	-	27.1	1,600.3	.7	48.2	12.8	392.0	-	-	-	-	2,081.0	-302.0	1,779.0
Procurement of Aircraft and Missiles, Navy	458.9	7.1	2,143.0	-	11.1	18.1	72.0	-	-	-	-	2,710.3	-195.3	2,515.0
Shipbuilding and Conversion, Navy	70.8	-	1,847.0	27.2	-	4.5	24.1	-	-	-	-	1,973.6	-7.6	1,966.0
Other Procurement, Navy	149.2	35.8	719.8	-	12.7	12.4	219.3	-	-	-	-	1,149.2	-91.2	1,058.0
Procurement, Marine Corps	-	-	-	170.8	-	22.2	10.4	-	-	-	-	203.4	-22.4	181.0
Aircraft Procurement, Air Force	463.6	83.8	1,508.5	693.7	38.6	9.8	1,165.0	-	-	-	-	3,963.0	-300.0	3,663.0
Missile Procurement, Air Force	1,225.5	15.1	134.1	-	-	-	519.9	-	-	-	-	1,894.6	-164.6	1,730.0
Other Procurement, Air Force	125.0	134.0	280.1	24.9	9.8	28.6	289.6	-	-	-	-	852.0	-50.0	802.0
Procurement, Defense Agencies	-	-	-	-	-	-	62.1	-	-	-	-	62.1	-1	62.0
<b>TOTAL - Procurement</b>	<b>2,493.0</b>	<b>302.9</b>	<b>8,403.6</b>	<b>746.5</b>	<b>142.6</b>	<b>86.1</b>	<b>2,714.4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14,889.2</b>	<b>-1,133.2</b>	<b>13,756.0</b>

SECRET

TABLE 24 - PY 1965 BUDGET PROGRAMS AND NEW OBLIGATIONAL AUTHORITY (cont'd)

By Appropriation Title  
(Millions of Dollars)

Appropriation Title	Strategic Retaliatory Forces	Continental Air and Missile Defense Forces	General Purpose Forces	Airlift and Sealift Forces	Reserve and Guard Forces	Research and Develop- ment	General Support	Retired Pay	Civil Defense	Military Assis- tance	Undis- tributed	Total Programs	Financing Adjust- ments	New Obli- gational Authority (Approp- riation)
<b>RESEARCH, DEVELOPMENT, TEST, AND EVALUATION</b>														
Research, Development, Test, and Evaluation, Army	64.8	2.3	29.6	-	2.1	1,341.1	24.1	-	-	-	-	1,397.0	-	1,397.0
Research, Development, Test, and Evaluation, Navy	313.2	2.0	269.5	-	-	1,098.8	13.7	-	-	-	-	1,451.0	-	1,451.0
Research, Development, Test, and Evaluation, Air Force	-	14.0	324.9	9.4	-	2,081.4	517.1	-	-	-	-	3,205.0	-55.0	3,205.0
Research, Development, Test, & Eval., Defense Agencies	-	-	-	-	-	294.8	224.2	-	-	-	-	519.0	-	519.0
Emergency Fund, Defense	-	-	-	-	-	150.0	-	-	-	-	-	150.0	-	150.0
<b>TOTAL - Research, Development, Test, &amp; Evaluation</b>	<b>378.0</b>	<b>18.3</b>	<b>624.0</b>	<b>9.4</b>	<b>2.1</b>	<b>4,966.1</b>	<b>779.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6,777.0</b>	<b>-55.0</b>	<b>6,722.0</b>
<b>MILITARY CONSTRUCTION</b>														
Military Construction, Army	-	55.8	75.7	2.2	-	50.9	223.5	-	-	-	-	408.0	-	408.0
Military Construction, Navy	8.5	3.5	106.3	-	-	31.9	127.8	-	-	-	-	278.0	-	278.0
Military Construction, Air Force	122.6	20.0	64.5	10.3	-	29.6	159.0	-	-	-	-	406.0	-	406.0
Military Construction, Defense Agencies	-	-	-	-	-	-	34.7	-	-	-	-	34.7	-	34.7
Military Construction, Army Reserve	-	-	-	-	-	5.7	-	-	-	-	-	5.7	-	5.7
Military Construction, Naval Reserve	-	-	-	-	-	7.0	-	-	-	-	-	7.0	-	7.0
Military Construction, Air Force Reserve	-	-	-	-	-	5.0	-	-	-	-	-	5.0	-	5.0
Military Construction, Army National Guard	-	-	-	-	-	6.0	-	-	-	-	-	6.0	-	6.0
Military Construction, Air National Guard	-	-	-	-	-	14.0	-	-	-	-	-	14.0	-	14.0
Loran Stations, Defense	-	-	-	-	-	-	5.0	-	-	-	-	5.0	-	5.0
<b>TOTAL - Military Construction</b>	<b>131.1</b>	<b>79.2</b>	<b>246.5</b>	<b>12.5</b>	<b>37.7</b>	<b>112.4</b>	<b>550.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,169.4</b>	<b>-1.4</b>	<b>1,168.0</b>
<b>FAMILY HOUSING</b>														
Family Housing, Defense	-	-	-	-	-	-	-	-	-	-	-	719.4	-	719.4
<b>CIVIL DEFENSE</b>														
Operation and Maintenance, Civil Defense	-	-	-	-	-	-	-	-	-	-	-	92.4	-	92.4
Research & Development, Shelter, & Construction, Civil Defense	-	-	-	-	-	-	-	-	-	-	-	265.6	-	265.6
<b>TOTAL - Civil Defense</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>358.0</b>	<b>-</b>	<b>358.0</b>
<b>MILITARY ASSISTANCE</b>														
<b>GRAND TOTAL</b>	<b>5,330.1</b>	<b>1,755.6</b>	<b>18,523.4</b>	<b>1,424.8</b>	<b>2,043.2</b>	<b>5,486.6</b>	<b>14,785.1</b>	<b>1,399.0</b>	<b>358.0</b>	<b>1,150.0</b>	<b>172.0</b>	<b>52,427.9</b>	<b>1,547.9</b>	<b>50,880.0</b>
<b>RECAPITULATION:</b>														
Department of the Army	-	250.5	5,737.4	29.3	1,089.2	1,457.7	3,808.5	-	-	-	-	12,372.6	-377.7	11,994.9
Department of the Navy	1,067.3	139.4	9,157.4	65.0	380.7	1,254.3	3,037.0	-	-	-	-	15,101.6	-366.5	14,735.1
Department of the Air Force	4,262.9	1,365.7	3,620.5	1,330.5	573.3	2,329.8	6,338.7	-	-	-	-	19,829.1	-644.6	19,184.5
Defense Agencies/OSD	-	-	-	-	-	444.8	1,600.8	1,399.0	-	-	-	3,444.6	-9.1	3,435.5
Office of Civil Defense	-	-	-	-	-	-	-	-	-	-	-	358.0	-	358.0
Military Assistance	-	-	-	-	-	-	-	-	-	-	-	1,150.0	-150.0	1,000.0
Proposed for separate transmittal (Undistributed)	-	-	-	-	-	-	-	-	-	-	-	172.0	-	172.0

SECRET